Public Statement:

Short bowel syndrome (SBS) results from a reduction in the functional absorptive surface area of the small intestine and leads to malabsorption and, without intervention, ultimate starvation. SBS can be caused by a variety of conditions: volvulus, atresias, necrotizing enterocolitis, Crohns disease, gastroschisis, thrombosis of the superior mesenteric artery, desmoid tumors, and trauma. Candidates for small bowel/liver transplantation have short bowel syndrome and are unable to obtain adequate nutrition from enteral feeding. These patients have been managed with long-term total parenteral nutrition and have developed evidence of impending end-stage liver failure, such as portal hypertension, cirrhosis, or advanced fibrosis. They may also have other TPN-associated complications that interfere with medical management. Small bowel transplantation requires authorization through case management by American Health Holding at 877-815-1017 (option 2).
Medical Policy Statement:

A small bowel transplant using a cadaveric intestine is considered medically necessary and is covered in adult and pediatric patients with intestinal failure (characterized by loss of absorption and the inability to maintain protein-energy, fluid, electrolyte, or micronutrient balance), who have established long-term dependency on total parenteral nutrition (TPN) and are developing severe complications due to total parenteral nutrition (TPN).

Small bowel transplants using a living donor is covered only when a cadaveric intestine is not available for transplantation in a patient who meets the criteria above for a cadaveric transplant.

Small bowel transplants in adults who are tolerating TPN is considered investigational and is not covered.

Background:

Benedetti et al reported outcomes from 4 children and 7 adults who underwent 12 living-related small bowel transplantations between 1998 and 2004 (Benedetti et al, 2006). All donors were reported to have had uneventful recovery following removal of up to 40% of the small intestine. The 3-year patient survival was 82%, with graft survival of 75%. Longer follow-up from the earlier cases was not reported. Gangemi and Benedetti published a literature review of living donor small bowel transplantation reports from 2003 to 2006; all of the reports listed Benedetti as author (Gangemi et al, 2006). The authors comment that, "Due to the excellent result in modern series of deceased donor bowel transplantation, widespread use of the procedure [living donor] should not be recommended, in consideration of the potential risks to donor. Furthermore, few centers have acquired the necessary experience with the procedure."

It has been suggested that improvements in survival over the last 10-15 years may justify removing the restriction of intestinal transplantation to patients who have severe complications of TPN (Maltarese et al, 2007). However, as noted by Vianna and colleagues in their paper on the status of intestinal transplantation, no randomized trials compare intestinal transplantation to long-term parenteral nutrition, and optimal timing for earlier transplantation has not been established (Vianna et al, 2008). This review also notes that the currently reported one-year graft and patient survival rate for intestinal transplantation is 80%.

In 2006, the British HIV Association and the British Transplantation Society Standards Committee published guidelines for kidney transplantation in patients with HIV disease (Bhagani et al, 2006). These criteria may be extrapolated to other organs.
The guidelines, which are similar to those cited above, recommend that any patient with end-stage organ disease with a life expectancy of at least 5 years is considered appropriate for transplantation under the following conditions:

- CD4 ≥ 200 cells/micro liter for at least 6 months.
- Undetectable HIV viremia (<50 HIV-1 RNA copies/mL) for at least 6 months.
- Demonstrable adherence and a stable HAART regimen for at least 6 months.
- Absence of AIDS-defining illness following successful immune reconstitution after HAART.

References:


Transplantation 1997; 64:1605-07.


Application to Products

This policy applies to ARBenefits. Consult ARBenefits Summary Plan Description (SPD) for additional information.

Last modified by: SCS Date: 10/25/2012

ARBenefits reserves the right to alter, amend, change or supplement medical policies as needed. ARBenefits reviews and authorizes services and substances. CPT and HCPCS codes are listed as a convenience and any absent, new or changed codes do not alter the intent of the policy.