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Total Parenteral Nutrition (TPN) in the Home Setting Corporate Medical Policy

File Name: Total Parenteral Nutrition (TPN) in the Home Setting
File Code: 1.03.VT204
Origination: 10/2004
Last Review: 09/2024
Next Review: 09/2025
Effective Date: 10/01/2024

Description/Summary

Total Parenteral Nutrition (TPN) is a type of infusion therapy that can be administered in the home setting, also known as parenteral hyper-alimentation. Used for individuals with medical conditions that impair gastrointestinal absorption to a degree incompatible with life, is also used for variable periods of time to bolster the nutritional status of severely malnourished individuals with medical or surgical conditions. TPN involves percutaneous transvenous implantation of a central venous catheter into the vena cava or right atrium. A nutritionally adequate hypertonic solution consisting of glucose (sugar), amino acids (protein), electrolytes (sodium, potassium), vitamins and minerals, and sometimes fats is administered daily. An infusion pump is generally used to assure a steady flow of the solution either on a continuous (24-hour) or intermittent schedule. If intermittent, a heparin lock device and diluted heparin are used to prevent clotting inside the catheter.

Policy

Coding Information

Click the links below for attachments, coding tables & instructions.

[Attachment I - CPT® Code List & Instructions](#)

When a service may be considered medically Necessary

Total Parenteral Nutrition (TPN) may be **considered medically necessary** by the Plan for conditions resulting in significantly inadequate intestinal absorption, including, but not limited to, any of the following:

- Crohn's disease;
- obstruction secondary to stricture or neoplasm of the esophagus or stomach;

- loss of the swallowing mechanism due to a central nervous system disorder, where the risk of aspiration is great;
- short bowel syndrome secondary to massive small bowel resection;
- malabsorption due to enterocolic, enterovesical, or enterocutaneous fistulas
- motility disorder (pseudo-obstruction);
- newborn infants with gastrointestinal anomalies such as tracheoesophageal fistula, gastroschisis, omphalocele, or massive intestinal atresia;
- infants and young children who fail to thrive due to systemic disease or secondarily to intestinal insufficiency associated with short bowel syndrome, malabsorption, or chronic idiopathic diarrhea;
- prolonged paralytic ileus following major surgery or multiple injuries;
- chronic pancreatitis;
- radiation enteritis;
- Obstructing stricture or cancer of the mouth, esophagus, stomach or intestine

The following criteria must be met prior to implementation of TPN:

1. The individual is unable to take nutrition enterally after gastrointestinal surgery; **OR**
2. The individual must be in a stage of wasting as indicative of the following:
 - Weight is significantly less than normal body weight for an individual's height and age in comparison with pre-illness weight **OR**
 - Serum albumin is less than 2.5 gm (Serum albumin lab value taken in last 4 weeks); **OR**
 - Blood urea nitrogen (BUN) is below 10 mg (however this is not a good marker in individuals receiving dialysis due to protein catabolism and dehydration); **OR**
 - Phosphorus level is less than 2.5 mg (normal phosphorus is 3-4.5 mg); **AND**
 - The individual is unable to receive more than 30% of their caloric needs orally or the individual cannot benefit from tube feedings as a result of a malabsorptive disorder.

NOTE: There are no kilocalorie minimums in pediatric patients.

Medically necessary nutrients, administration supplies, and equipment are all considered **medically necessary** if the criteria for total parenteral nutrition are met.

The Plan may consider intradialytic parenteral nutrition (IDPN) **medically necessary** as an alternative to regularly scheduled TPN in individuals who would be considered candidates for TPN and meet the following criteria:

- Individual meets TPN criteria above; **AND**
- Individual has End Stage Renal Disease (ESRD); **AND**
- Individual is receiving dialysis

When a service is considered not medically necessary

Total Parenteral Nutrition is considered **not medically necessary** under the following circumstances:

- When criteria above is not met;

- Nutrients and their manner of administration for TPN is not specifically ordered by a qualified healthcare provider;
- To increase protein or caloric intake in addition to the individual's daily diet;
- In Individuals with a stable nutritional status, in whom only short-term parenteral nutrition might be required, i.e., for less than 2 weeks;
- For routine preoperative and/or postoperative care;
- Individuals with functional GI tracts.

Policy Guidelines

Some components of the TPN formula are included in the per diem, but all other drugs are coded separately. Specifically, products used in a standard TPN formula and included in the per diem are:

- Non-specialty amino acids (e.g., Aminosyn, FreAmine, Travasol)
- Concentrated dextrose (e.g., D10, D20, D40, D50, D60, D70)
- Sterile water
- Electrolytes (e.g., CaCl₂, KCL, KPO₄, MgSo₄, NaAc, NaCl, NaPO₄)
- Standard multi-trace element solutions (e.g., MTE4, MTE5, MTE7)
- Standard multivitamin solutions (e.g., MVI-12)
- DME (pumps, poles and accessories)
- Line maintenance supplies including non-therapeutic anti-coagulants and saline

Not included in the TPN per diem are the following items to be coded separately:

- Specialty amino acids for renal failure (e.g., Aminess, Aminosyn-RF, NephroAmine, RenAmin)
- Specialty amino acids for hepatic failure (e.g., HepatoAmine)
- Specialty amino acids for high stress conditions (e.g., Aminosyn-HBC, BranchAmin, FreAmine HBC, Trophamine)
- Specialty amino acids with concentrations of 15% and above when medically necessary for fluid restricted individuals (e.g., Aminosyn 15%, Novamine 15%, Clinisol 15%); if specialty amino acids are not medically necessary for the individual's condition but are standard protocol, they are not separately billable but part of the TPN per diem
- Lipids (e.g., Intralipid, Liposyn)
- Added trace elements not from a standard multi-trace element solution (e.g., chromium, copper, iodine, manganese, selenium, zinc)
- Added vitamins not from a standard multivitamin solution (e.g., folic acid, vitamin C, vitamin K)
- Products serving non-nutritional purposes (e.g., insulin, iron dextran, Pepcid, Sandostatin, Zofran)

Reference Resources

1. Blue Cross Blue Shield Association (BCBSA) Medical Policy Reference Manual. Total Parenteral Nutrition, and Enteral Nutrition in the Home- 1.02.01. Last updated 03/2003. (Archived 06/2009).
2. Centene Corporation. Clinical Policy. (04/2023). Total Parenteral Nutrition and Intradialytic Parenteral Nutrition. Reference Number: CP.PHAR.205.

Related Policies

Enteral Nutrition

Home Infusion Therapy

Medical Food for Inherited Metabolic Disease

Home Infusion Therapy (including Enteral Nutrition and Total Parenteral Nutrition) Payment Policy

Document Precedence

Blue Cross and Blue Shield of Vermont (BCBSVT) Medical Policies are developed to provide clinical guidance and are based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. The applicable group/individual contract and member certificate language, or employer's benefit plan if an ASO group, determines benefits that are in effect at the time of service. Since medical practices and knowledge are constantly evolving, BCBSVT reserves the right to review and revise its medical policies periodically. To the extent that there may be any conflict between medical policy and contract/employer benefit plan language, the member's contract/employer benefit plan language takes precedence.

Audit Information

BCBSVT reserves the right to conduct audits on any provider and/or facility to ensure compliance with the guidelines stated in the medical policy. If an audit identifies instances of non-compliance with this medical policy, BCBSVT reserves the right to recoup all non-compliant payments.

Administrative and Contractual Guidance

Benefit Determination Guidance

Prior approval may be required and benefits are subject to all terms, limitations and conditions of the subscriber contract.

Incomplete authorization requests may result in a delay of decision pending submission of missing information. To be considered complete, see policy guidelines above.

NEHP/ABNE members may have different benefits for services listed in this policy. To confirm benefits, please contact the customer service department at the member's health plan.

Federal Employee Program (FEP): Members may have different benefits that apply. For further information please contact FEP customer service or refer to the FEP Service Benefit Plan Brochure. It is important to verify the member's benefits prior to providing the service to determine if benefits are available or if there is a specific exclusion in the member's benefit.

Coverage varies according to the member's group or individual contract. Not all groups are required to follow the Vermont legislative mandates. Member Contract language takes precedence over medical policy when there is a conflict.

If the member receives benefits through an Administrative Services Only (ASO) group, benefits may vary or not apply. To verify benefit information, please refer to the member's employer benefit plan documents or contact the customer service department. Language in the employer benefit plan documents takes precedence over medical policy when there is a conflict.

Policy Implementation/Update information

3/1/2005	Billing Codes Updated
5/2006	Minor language changes and additional medical necessity criteria added
6/2007	Code description added
9/2007	To CAC
7/2008	Annual review, new format and benefit application section added. No other changes.
9/2008	Reviewed by CAC
11/2011	Separated from enteral nutrition policy. Transferred to new policy format. Coding table updated. Coder reviewed and approved codes - SAF
01/2013	Audit information section added. New Blue Card and FEP language added. Updated CPT codes.
06/2015	Per diem language. KAF. No update to clinical content.
07/2016	Format changes and HCPCS revised wording for B5100 & B5200
10/2017	Name changed to Total Parenteral Nutrition (TPN) in the home setting. Removed code ranges in the table. Updated title of policy, added/revised references, minor language changes and additional medical necessity criteria added, updated related policies section. Added pediatric criteria.
01/2019	Reviewed - Policy statement unchanged, references and codes reviewed.
01/2020	Reviewed, policy statements remain unchanged
11/2020	Reviewed policy statements remain unchanged
10/2021	Policy reviewed. Calorie intake criteria wording changed from orally to enterally.
10/2022	Policy reviewed. Language added for medically necessity criteria for gastrointestinal surgery.

08/2023	Policy reviewed; references updated. Policy statements remain unchanged.
09/2024	Policy reviewed. Add list of potential conditions where TPN may be indicated when there is concomitant malabsorption. Clarification around malnutrition criteria for medical necessity. Formatting changes for clarity and consistency.

Eligible Providers

Qualified healthcare professionals practicing within the scope of their license(s).

Approved by BCBSVT Medical Directors

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Vice President and Chief Medical Officer

Tammaji P. Kulkarni, MD
Senior Medical Director

Attachment I CPT® code list & instructions

CPT®/ HCPCS Code Ranges	Descriptor	Plan Instructions
96523	Irrigation of implanted venous access device for drug delivery systems	
B4164	Parenteral nutrition solution: carbohydrates (dextrose), 50% or less (500 ml = 1 unit), home mix	
B4168	Parenteral nutrition solution; amino acid, 3.5%, (500 ml = 1 unit) - home mix	Requires Prior Approval
B4172	Parenteral nutrition solution; amino acid, 5.5% through 7%, (500 ml = 1 unit) - home mix	Requires Prior Approval
B4176	Parenteral nutrition solution; amino acid, 7% through 8.5%, (500 ml = 1 unit) - home mix	Requires Prior Approval
B4178	Parenteral nutrition solution: amino acid, greater than 8.5% (500 ml = 1 unit), home mix	Requires Prior Approval

B4180	Parenteral nutrition solution: carbohydrates (dextrose), greater than 50% (500 ml = 1 unit), home mix	Requires Prior Approval
B4185	Parenteral nutrition solution, per 10 grams lipids	Requires Prior Approval
B4189	Parenteral nutrition solution: compounded amino acid and carbohydrates with electrolytes, trace elements, and vitamins, including preparation, any strength, 10 to 51 g of protein, premix	Requires Prior Approval
B4193	Parenteral nutrition solution: compounded amino acid and carbohydrates with electrolytes, trace elements, and vitamins, including preparation, any strength, 52 to 73 g of protein premix	Requires Prior Approval
B4197	Parenteral nutrition solution; compounded amino acid and carbohydrates with electrolytes, trace elements and vitamins, including preparation, any strength, 74 to 100 grams of protein, premix	Requires Prior Approval
B4199	Parenteral nutrition solution; compounded amino acid and carbohydrates with electrolytes, trace elements and vitamins, including preparation, any strength, over 100 grams of protein, premix	Requires Prior Approval
B4216	Parenteral nutrition; additives (vitamins, trace elements, Heparin, electrolytes), home mix, per day	Requires Prior Approval
B4220	Parenteral nutrition supply kit; premix, per day	Requires Prior Approval
B4222	Parenteral nutrition supply kit; home mix, per day	Requires Prior Approval
B4224	Parenteral nutrition administration kit, per day	Requires Prior Approval

B5000	Parenteral nutrition solution: compounded amino acid and carbohydrates with electrolytes, trace elements and vitamins, including preparation, any strength, renal - Aminosyn RF, NephroAmine, RenAmine-premix	Requires Prior Approval
B5100	Parenteral nutrition solution: compounded amino acid and carbohydrates with electrolytes, trace elements and vitamins, including preparation, any strength, hepatic -, HepatAmine, premix	Requires Prior Approval
B5200	Parenteral nutrition solution: compounded amino acid and carbohydrates with electrolytes, trace elements and vitamins, including preparation, any strength, stress - branch chain amino acids-Freamine-HBC - premix	Requires Prior Approval
B9004	Parenteral nutrition infusion pump, portable	Requires Prior Approval
B9006	Parenteral nutrition infusion pump, stationary	Requires Prior Approval
B9999	Not otherwise classified for parenteral supplies	Requires Prior Approval
E0776	IV pole	
E0779	Ambulatory infusion pump, mechanical, reusable, for infusion 8 hours or greater	
E0780	Ambulatory infusion pump, mechanical, reusable, for infusion less than 8 hours	
E0781	Ambulatory infusion pump, single or multiple channels, electric or battery operated, with administrative equipment, worn by patient	
E0782	Infusion pump, implantable, nonprogrammable (includes all components, e.g., pump, catheter, connectors, etc.)	

E0783	Infusion pump system, implantable, programmable (includes all components, e.g., pump, catheter, connectors, etc.)	
E0784	External ambulatory infusion pump, insulin	
E0785	Implantable intraspinal (epidural/intrathecal) catheter used with implantable infusion pump, replacement	
E0786	Implantable programmable infusion pump, replacement (excludes implantable intraspinal catheter)	
E0791	Parenteral infusion pump, stationary, single, or multichannel	Requires Prior Approval
J1642	Injection, Heparin Sodium (hep lock flush)	
S9364	Home infusion therapy, total parenteral nutrition (TPN); administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment including standard TPN formula (lipids, specialty amino acid formulas, drugs other than in standard formula and nursing visits coded separately), per diem (do not use with home infusion)	Requires Prior Approval
S9365	Home infusion therapy, total parenteral nutrition (TPN); one liter per day, administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment including standard TPN formula (lipids, specialty amino acid formulas, drugs other than in standard formula and nursing visits coded separately), per diem	Requires Prior Approval

S9366	Home infusion therapy, total parenteral nutrition (TPN); more than one liter but no more than two liters per day, administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment including standard TPN formula (lipids, specialty amino acid formulas, drugs other than in standard formula and nursing visits coded separately), per diem	Requires Prior Approval
S9367	Home infusion therapy, total parenteral nutrition (TPN); more than two liters but no more than three liters per day, administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment including standard TPN formula (lipids, specialty amino acid formulas, drugs other than in standard formula and nursing visits coded separately), per diem	Requires Prior Approval
S9368	Home infusion therapy, total parenteral nutrition (TPN); more than three liters per day, administrative services, professional pharmacy services, care coordination, and all necessary supplies and equipment including standard TPN formula (lipids, specialty amino acid formulas, drugs other than in standard formula and nursing visits coded separately), per diem	Requires Prior Approval