IV Renal Nutrition Products: IDPN and IPN

Proplete®
IDPN Protein Therapy

PentecHealth offers a family of nutrition formulations for the malnourished dialysis patient.

The Family Includes:

IDPN Formulas for the hemodialysis patient: IDPN, IDPN with Lipids

IPN Formulas for the peritoneal dialysis patient: IPN

Find out more about this significant breakthrough in IV Renal Nutrition
800-223-(IDPN) 4376

IDPN

This line of patent pending formulas is designed for the Protein Malnourished Hemodialysis Patient.*

Contents: Amino Acids, Low Carbohydrate/Dextrose, No Lipid

Patient Categories For Use:

A. Protein Malnutrition accompanied by low serum albumin with adequate caloric intake

B. Protein Malnutrition accompanied by low serum albumin with difficult to control blood glucose

C. Protein Malnutrition accompanied by low serum albumin with fluid management challenge
   - High interdialytic weight gains
   - Advanced cardiac or liver disease

IDPN with Lipids

This line of formulas is designed for the Calorie Malnourished or Protein/Calorie Malnourished Hemodialysis Patient.*

Contents: Amino Acids, Higher Carbohydrate/Dextrose, Lipid

Patient Categories For Use:

A. Calorie Malnutrition accompanied by low body weight or weight loss with inadequate caloric intake

B. Protein/Calorie Malnutrition accompanied by low body weight or weight loss and low serum albumin with inadequate protein calorie intake.

IPN

This line of formulas is designed for the Protein Malnourished Peritoneal Dialysis Patient.*

Contents: Amino Acids, Carbohydrate/Dextrose

Patient Categories For Use:

A. Protein malnutrition accompanied by low serum albumin with adequate caloric intake

B. Protein/calorie malnutrition accompanied by low body weight or weight loss and low serum albumin with inadequate protein/calorie intake.

**See Pentec Health IDPN/IPN Patient Qualification Criteria*

pentec health™

IDPN Past and Present

Proplete®
IDPN Protein Therapy

A Way To Balance Of Meeting Patient Protein Needs And Simplifying Clinical Management.

	PAST	PRESENT
Primary Indication	• Severe Global Malnutrition	Standard of Care for • Protein Malnutrition • Calorie Malnutrition or Protein/Calorie Malnutrition
Coverage	• Medicare Part B • Limited commercial plans	• Medicare Part D • Broader commercial plan acceptance • Medicaid in some states
Clinical Criteria	• Permanent impairment of GI tract • Proof of malabsorption	Protein Malnutrition • Average serum Albumin < 3.5 g/dL for 3 months • Progressive decline in serum Albumin to < 3.5 g/dL over 3 months • nPCR < 0.8 or documentation of inadequate protein intake Calorie Malnutrition • Current weight < 90% of IBW/DBW • BMI < 18 or • Weight loss > 5% over three months
Formulas	• One size fits all • Set mixture of amino acids, dextrose and lipids	Therapy tailored to: • Protein Malnutrition • Calorie Malnutrition or Protein/Calorie Malnutrition
Protein	• Historically 25-75g protein/infusion	• Meets 100% of patient weekly protein requirements per KDOQI recommendations for IDPN Ex: 105+ g protein/infusion provided by weight-based formula for 70 kg patient
Nursing Impact	• Large volume solutions • Longer infusion times	• Concentrated low volume solutions • Greater infusion flexibility • Less time involved - less BG checks, etc

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Criteria

serum Albumin

1.2 g/kg in the

history indicating calorie

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g/dL

3.8 g/dL or above for three consecutive months.

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RENAL

How IDPN & IPN therapy can benefit your patients.

Our unique, weight-based formulations are designed to replenish protein loss while minimizing fluid and dextrose content.

Protein Provision

Ample protein is provided in weight-based formulations to optimize protein repletion critical to improving nutrition status.

Minimized Volume

Final formula volume is minimized by using concentrated base solutions for amino acids and dextrose.

Low Dextrose

Formulas are designed to provide dextrose in an amount sufficient to allow amino acids to be utilized for protein synthesis while decreasing risk of increased blood glucose levels (compared to historical IDPN formulations).

Nutrition therapy can help alleviate the many concerns you have when treating your dialysis patients, including:

Hospitalization

The biochemical marker **serum albumin** as a component of Protein Energy Wasting (PEW) in CKD-5D has consistently been shown to be a strong independent marker of outcomes over the past several decades. One recent large scale observational study (n=135,545) utilizing USRDS data to examine factors associated with hospitalization for infection among Medicare beneficiaries starting HD between 2005-2008, determined that compared to a reference group of patients with albumin > or equal to 4.0 g/dL, **patients with albumin of 3.0-3.5 g/dL at dialysis initiation had more than 20% increase in the rate of infection-related hospitalization compared to patients with albumin levels > or equal to 4.0 g/dL.** (1) Another recent study (n=349) was reviewed to identify factors predictive of a 30-day re-hospitalization in HD patients. **In this study, patients with an albumin < 3.3 g/dL were associated with higher readmission rates compared to those patients with albumin levels > 3.3 g/dL.** (2) According to the 2017 USRDS data report, hospitalization represents a significant societal and financial burden, accounting for approximately 33% of total Medicare expenditures for dialysis patients. (3) **Additionally, 35% of dialysis patients have an unplanned re-hospitalization within 30 days of discharge and re-hospitalization rates for dialysis patients are more than double that of older Medicare beneficiaries without a diagnosis of kidney disease** (35.4% vs. 15.3%).

Addressing & Treating PEW

Regardless of the reason for low albumin, studies addressing prevention and treatment of low albumin remain paramount due to **strong association with outcomes such as mortality, hospitalization, re-hospitalization and their associated costs.** Studies have demonstrated in both HD and Peritoneal Dialysis (PD) patient populations that **small incremental increases of albumin are associated with better outcomes.** (4, 5) Expert key opinion leaders in renal nutrition research have developed an algorithm inclusive of oral nutrition supplements and enteral and parenteral therapies (inclusive of Intradialytic Parenteral Nutrition (IDPN) and Intraperitoneal Nutrition (IPN). (6) **These therapies have demonstrated to be effective in increasing albumin and promoting positive nitrogen balance and protein synthesis.** (7-15) The CMO's of the largest dialysis chains in the U.S. have also proposed an algorithm, similar to the one proposed by renal nutrition research experts, which addresses malnutrition, and offers support for the use of IDPN therapy. This can be found in literature published by other large organizations which are recognized as having expertise in both renal and nutrition support. (16-18)

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IDPN and IPN Patient Qualification Criteria

- Patient given intensive dietary counseling, emphasizing the need for an increase in protein and/or calorie intake for a mi month with no evidence of clinical improvement. F rise in albumin or estimated/target dry weight.

Oral supplementation: Initiation of attempted suppl

- No improvement in albumin level or weight ga
- Intolerance to supplements
- Failed trial of supplementation (this includes

What labs can qualify a patient?

***Protein Malnutrition:** *(meet one parameter)*

- Three month average albumin <3.5 g/dL (the current level can not be 3.5)
- nPCR/nPNA <0.8 g/kg/day protein

What anthroprometrics qualify a p

***Energy Malnutrition:** *(meet one parameter)*

- Current weight <90% of ideal body weight based on the Hamwi Method
- Body mass index <18
- Weight loss of >5% over 3 months
- Weight loss of >10% over 6 months
- Weight loss of >20% with no time limit

*Check with your Policies and Procedures to verify if your clinic has specific guidelines.

IDPN/IPN Qualification

How does my patient qualify for IDPN or IPN?

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