SECTION 8A: CLINICAL PRACTICES	POLICY: 8A.23
POLICY: PARENTERAL NUTRITION EDUCATION PRACTICES	PAGE: 1 OF: 4

PURPOSE:

- To provide guidance for the safe preparation, administration, and monitoring of Total Parenteral Nutrition (TPN) therapy in the home setting to ensure patient safety, reduce complications, and promote optimal clinical outcomes.

POLICY:

- Total Parenteral Nutrition (TPN) support services provided by this agency are considered skilled nursing functions and shall be performed in compliance with all applicable federal, state, and local requirements.
- All TPN formulas, medications, and nutritional preparations shall be obtained from a licensed pharmacy.
    - The agency shall monitor, document, and report any adverse reactions, complications, or untoward responses related to parenteral nutrition to the patient's pharmacy and physician promptly.
- TPN therapy will be initiated and maintained using aseptic technique and appropriate infusion equipment.
- Prior to initiation of TPN therapy, the agency shall provide education, hands-on training, and written instructions to the patient, patient representative, or caregiver that includes:
    - Preparation of formulas and medications,
    - Administration of parenteral nutrition,
    - Proper use and maintenance of equipment,
    - Infection control, tube maintenance & flushing, medication / supply storage,
    - Recognition of complications, adverse reactions, and signs of infection,
    - Identification and response to equipment malfunctions, and
    - Instructions for accessing a qualified clinician during business hours and after hours for nursing support, medication questions, or equipment troubleshooting.

Reference: PDN Policy 13019

- Agency nurses will educate patients and caregivers in accordance with physician orders, pharmacy instructions/materials and policy guidelines.
- The Agency will ensure that all clinicians providing TPN care demonstrate competency in central line care and infusion therapy.
- The agency shall provide retraining and review of parenteral nutrition procedures as needed, upon change in condition, equipment, or orders, or upon patient or caregiver request.
    - During each initial / admission visit and as applicable or necessary thereafter, an Agency RN shall ensure the patient and/or caregiver is provided with information and education (verbal & demonstration) regarding all applicable in-home practices and procedures necessary for the ordered parenteral nutrition care plan.
- The agency shall maintain documentation in the clinical record that includes:
    - Results and competency outcomes of patient and caregiver training or retraining,
    - The composition, prescribed indication, role, and mode of administration of feeding formulas or nutritional medications, and
    - A summary at termination of nutritional therapy that includes the results of therapy, and any known complications or outcomes.

SPECIAL CONSIDERATIONS:

- TPN is administered via a central venous access device (CVAD) due to its high osmolarity.
- Patients receiving TPN may be at increased risk for complications including infection, metabolic imbalances, and catheter-related issues.
- Blood glucose fluctuations may occur; monitoring may be required per physician order.
- Electrolyte imbalances, fluid overload, or dehydration may occur and should be reported as indicated.
- Lipid emulsions may be administered separately or as part of a combined TPN solution per pharmacy preparation.
- Infusion rates should not be abruptly stopped unless clinically indicated; tapering may be required per order.

- Use of an infusion pump is required to ensure accurate delivery.

METHODS OF ADMINISTRATION:

- Continuous infusion (typically over 24 hours).
- Cyclic infusion (administered over a prescribed number of hours, typically overnight).
- Administration via an electronic infusion pump.
- Lipid administration as a separate infusion or included in TPN formulation per physician/pharmacy order.

INFECTION CONTROL:

- Strict aseptic technique will be used during all line access and dressing changes.
- Hand hygiene will be performed before and after all patient contact and procedures.
- Central line dressing changes will be performed per Agency policy and physician order.
- All connections will be properly disinfected prior to access.
- Tubing and administration sets will be changed per Pharmacy/Agency policy (typically every 24 hours)
- Patients/caregivers will be educated on signs and symptoms of infection, including fever, redness, swelling, or drainage at the catheter site.

PROCEDURE:

- Wash hands with soap and water.
- Verify physician order, TPN solution, and patient identity prior to administration.

- The nurse will provide education to the patient and/or caregiver on proper technique for TPN bag and tubing changes, as appropriate to the plan of care.
- If additives (e.g., vitamins, electrolytes, insulin, or other prescribed medications) are ordered to be added to the TPN solution, the nurse will verify the physician order and pharmacy instructions prior to administration.

    - Additives will only be introduced into the TPN solution if specifically directed and supplied by the pharmacy and in accordance with manufacturer guidelines and Agency policy.
    - Inspect additive vials/ampules for expiration date, clarity, and integrity prior to use. Do not use if compromised.
    - Cleanse the medication port of the TPN bag using appropriate antiseptic agent and allow to dry completely prior to access.
    - Using a sterile syringe and needle, withdraw the prescribed additive and inject into the designated port of the TPN bag.
    - Gently mix the solution per pharmacy or manufacturer guidelines to ensure proper distribution of additives. Do not shake vigorously.

- Inspect TPN solution for clarity, expiration date, and integrity prior to use.
- Perform hand hygiene and don appropriate personal protective equipment (PPE).
- Prepare infusion pump and tubing per manufacturer guidelines.
- Prime tubing using aseptic technique.
- Cleanse catheter hub per Agency protocol prior to connection.
- Initiate infusion at the prescribed rate using an infusion pump.
- Monitor patient response during infusion initiation, including tolerance and any adverse reactions.
- Ensure proper flushing of the catheter per Agency protocol. For patients receiving continuous TPN infusion, heparin is not required between bag changes; flushing with 0.9% Sodium Chloride is sufficient.

- Clean up your workspace and properly discard all waste ensuring that all needles have been placed in a sharps container.
- Please Note: If it is the patient's first dose, the nurse will remain with and monitor the patient for 30 minutes after infusion initiation per agency policy unless otherwise instructed by the pharmacy/MD.

DOCUMENTATION:

- Date, time, and purpose of visit.
- Verification of physician order and TPN solution
- Assessment of CVAD (site condition, patency, dressing status).
- Vital signs and relevant patient assessment findings.
- Infusion details (rate, duration, route, etc.)
- Lot numbers and expirations dates as appropriate
- Patient tolerance and any adverse reactions.
- Education provided to patient/caregiver and response to teaching.
- Any communication with physician, pharmacy, or care team/Agency.
- Description of any complications, interventions, and outcomes.