

Total Parenteral Nutrition

Patient name: _____ Admission: _____

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I. The client/caregiver can define total parenteral nutrition or hyperalimentation.

- A. It is a hypertonic solution consisting of dextrose, amino acids, lipids, and select electrolytes and minerals. It is given through a central line to provide all nutrients for the body.
- B. The solution is a sterile mixture that is prepared by a pharmacist.
- C. The client will need to be monitored by ongoing assessments and laboratory testing.

II. The client/caregiver can list possible reasons for receiving total parental nutrition therapy.

- A. Reduced intake of calories because of
 - 1. Inability to absorb or digest food (i.e., severe vomiting or diarrhea, obstruction, severe burns, trauma, and cancer)
- B. Prolonged alteration in gastrointestinal function because of
 - 1. Disease, requiring the bowel or other organs to rest (pancreatitis, severe inflammatory bowel disease, etc.)
- C. Weight loss of 10% or more of usual body weight
- D. Reduction in values for
 - Prealbumin
 - Serum albumin
 - Total lymphocyte count
 - Total iron-binding capacity
- E. Intolerance to food or enteral feedings

III. The client/caregiver can demonstrate how to care for TPN solution.

- A. Keep TPN solution in refrigerator.
- B. Take next bag of solution from the refrigerator 4 to 6 hours before using, and allow solution to reach room temperature before using.
- C. Keep supplies in a clean, dry place.

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- D. Keep solution away from children.
- E. Check solution bag before use.
 - 1. Solution should be clear and free of floating material. If lipids are added, the solution may appear milky but free of floating material.
 - 2. Make sure that the bag has no leaks or damage.
 - 3. Make sure that the bag is labeled with contents and expiration date.

IV. The client/caregiver can demonstrate the administration of the solution.

- A. Clean work area. Wash hands. Assemble equipment.
- B. Read the label carefully to be sure that it is exactly what the physician prescribed.
- C. Inspect solution and warm solution to room temperature.
- D. Prepare solution and tubing as instructed.
- E. Set the pump to infuse solution at the rate ordered by physician.
- F. Flush the catheter as ordered when solution is finished.

V. The client/caregiver can list general care measures to prevent complications.

- A. Prevent infection by using strict technique as instructed.
- B. Inspect catheter insertion site daily for signs of redness, warmth, swelling, or drainage.
- C. Monitor for fluid overload by checking for any swelling in arms, legs, hands, and so forth.
- D. Weigh at the same time every day.
- E. Check urine for glucose and acetone as ordered.
- F. Provide good oral care frequently.
- G. Change dressing as ordered.
- H. Flush catheter as ordered.
- I. Take temperature as ordered.

(Continued)

Part IV Procedures and Surgeries

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- J. Use your solution exactly as directed.
- K. Have contact numbers for physician, pharmacist, nurse, and any other health care provider available to call if problems or questions occur.
- L. It is important to keep all appointments with your doctor and the laboratory.

VI. The client/caregiver can list signs and symptoms of complications when receiving TPN.

- A. Report these side effects if they are severe or do not go away:
 - Mouth sores
 - Poor night vision
 - Skin changes
- B. Call physician or health care provider if any of the following symptoms occur:
 - Fever or chills
 - Stomach pain
 - Difficulty breathing
 - Rapid weight gain or loss
 - Increased urination
 - Upset stomach or vomiting
 - Confusion or memory loss
 - Muscle weakness, twitching, or cramps
 - Swelling of hands, feet, or legs
 - Extreme thirst
 - Fatigue

Procedures: Intravenous Therapy

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- Changes in heartbeat
 - Tingling in the hands or feet
 - Convulsion or seizures
- C. Call if there is a catheter occlusion or partial occlusion: lack of flow or decreased flow of solution.

RESOURCES

Home health agency

Medical equipment company

REFERENCES

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