CAREPATHrx™
Specialty Pharmacy & Infusion Solutions

NUTRITION SUPPORT/FLUID SUPPORT GUIDELINES

Section: Nursing
Compliance: ACHC Infusion Pharmacy
ACHC Standards:
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Approved by, Title and Date Approved: Kathleen Patrick, President 1/1/21, 5/1/21

I. POLICY

The following guidelines will be followed when providing nutrition support/fluid support therapy.

II. PROCEDURES

A. Registered nurses meeting the minimum requirements of the nurse clinician job description and who complete the infusion therapy orientation program shall be permitted to provide nutrition and fluid support therapy services.

B. Nutrition support may be initiated in the home, on a case-by-case basis, upon clinical acceptance by both the Nursing and Pharmacy Directors according to "First Dosing Policy".

C. Initiation of therapy in the home results in more intense and frequent nursing visits related to patient teaching and clinical monitoring.

D. During the pre-discharge assessment the nurse clinician shall pay particular attention to:

1. Stability of underlying disease, potential for frequent re-hospitalization
2. Limitations or restrictions to concurrent oral intake
3. Glucose tolerance
4. Fluid and electrolyte balance (baseline laboratory)
5. Ideal, usual and current weight as well as expected weight gain
6. Total number of daily calories/grams protein ordered
7. Potential for catheter related infection
8. Psychosocial adjustment to chronic nature of therapy; patient/caregiver responsibilities

E. The location of the distal tip of a feeding catheter/tube shall be documented prior to initiation of Home Nutrition Support.

1. Parenteral nutrition solutions with final dextrose concentrations of greater than 10% shall be infused via central venous catheters or vascular access ports whose distal tip terminates in the superior or inferior vena cava

2. Enteral formulas shall be infused via:

    a. Nasogastric feeding tubes (small bore preferred)
    b. Gastrostomy tubes
    c. Jejunostomy tubes
    d. Gastrojejunostomy tubes
    e. Gastrostomy buttons

F. The prescription for parenteral nutrition should include:

1. Percent of dextrose
2. Percent of amino acids
3. Electrolytes (Potassium, Sodium, Acetate/Chloride, Phosphorus, Calcium, Magnesium)
4. Fat soluble, water soluble vitamins
5. Trace elements (zinc, chromium, iodine, selenium, copper and others)
6. Other additives (heparin, insulin, iron dextran, cimetidine)
7. Total volume to be infused during each cycle
8. Whether cycle is continuous or intermittent (number of hours of cycle)
9. Number of days per week of infusion
10. Volume, percent and frequency of fat emulsion infusion, fat emulsion may be given 2-3 times a week or daily and may be piggybacked or mixed with glucose/amino acid solution (TNA).

G. Additional Physician Orders Should Include: (Plan of Treatment/Supplemental Orders)

1. Heparin dose/volume for heparin locking
2. Standing orders related to catheter hub repair and use of urokinase in the home
3. Parameter changes from baseline that shall be verbally reported to physician. This shall include, at a minimum, reportable weight gain/loss

H. The Physician's Order for Enteral Nutrition Should Include:

1. Formula name or equivalent
2. Strength of formula and mixing directions if required
3. Feeding route
4. Method of administration intermittent (gravity, syringe or continuous pump)
5. Total volume to be infused per cycle, duration of infusion, rate of infusion (pump)
6. Specific tube flushing directions, as needed.
7. Amount of residual for which to hold feeding, if appropriate

I. Physician orders shall be obtained for the type and frequency of laboratory monitoring. Common labs obtained include:

1. BUN, creatinine, electrolytes, and blood glucose daily, weekly, or monthly depending on patient stability
2. Vitamin and trace element assays initially until stable and intermittently, especially if replacement therapy is being given
3. CBC with differential and platelets
4. LFT's, albumin
5. Triglycerides

J. All parenteral amino acid/glucose solutions shall be final filtered during administration using a 0.22-micron filter. Total nutrient admixtures (TNA) shall be final filtered using a 1.2-micron filter.

K. Enteral formulas shall hang for a maximum of 8 hours. Formulas that require reconstitution or additives shall hang for a maximum of 4 hours for children or according to manufacturer's guidelines. Enteral formulas in a closed system should not hang longer than 24 hours or in accordance with manufacturer's recommendations.

L. Parenteral solutions shall hang for no more than 24 hours.

M. Powdered enteral formulas may be mixed using tap water.

N. Open cans of enteral formula shall be refrigerated and discarded after 24 hours.

O. Parenteral nutrition (amino acids/glucose solution and TNA solutions) shall be controlled via infusion control devices. Piggybacked lipids shall be infused via an infusion control device.

P. If TNA solutions "oil out", the solution may be gently agitated to return it to emulsion. If the solution does not return to emulsion, contact the center pharmacist.

Q. In addition to the usual instruction in catheter site care, aseptic administration techniques, pump function, infection control procedures, and who to contact, the patient/caregiver shall be instructed to monitor:

1. Weight
2. Intake and Output
3. Temperature
4. Urine glucose or finger sticks for blood glucose if/as ordered by physician.
5. Potential metabolic complications:

    a. Metabolic
    b. Signs of infection
    c. Mechanical

6. Access site condition (tube or line, pump, ancillary equipment):

    a. Signs of access device infection
    b. Catheter patency
    c. Potential malposition

7. Potential mechanical and procedural problems:

    a. Catheter or tube occlusion, leakage, breakage, or dislodgement
    b. Equipment malfunction or leakage
    c. Infusate contamination or precipitate

8. Signs of infection

R. At a minimum, the following clinical parameters will be assessed and documented for each nursing visit:

1. Vital signs
2. Weight
3. Presence/absence of edema
4. GI symptoms if present
5. Condition of access site
6. Presence/absence oral diet
7. Patient compliance