ADULT PARENTERAL NUTRITION ORDERS 1 of 2

(✓) Check, circle and/or fill in all orders to be implemented as appropriate.

☑ Dietary Consult to Evaluate & Recommend Total Parenteral Nutrition (TPN) Orders (enter into Powerchart)

TPN INDICATION:

INSTRUCTIONS

The Adult Parenteral Nutrition Order form must be received in the Pharmacy by 1200 daily. Discard any unused volume after 24 hours. Refer to policy CL.67 for administration of TPN. Contact the Nutrition or Pharmacy Department for additional information.

INTRAVENOUS ACCESS (Proper tip placement of the CVC or PICC MUST be confirmed prior to dispensing of TPN)

☐ Central Venous Catheter (CVC)  ☐ Peripherally Inserted Central Catheter (PICC)

STEP ONE: Obtain Monitoring Parameters

☐ WEIGHTS: Every Monday, Wednesday & Friday -OR- Daily for Critical Care patients

☑ DAY 1: Nutritional Profile (enter each test separately into the computer) – Comprehensive Metabolic Panel, Magnesium, Phosphate, Triglycerides, Transferrin, Prealbumin, Complete Blood Count, Prothrombin Time/Activated Partial Thromboplastin Time, Capillary Blood (Fingerstick) Glucose every 6 hours

☑ DAILY: Capillary Blood (Fingerstick) Glucose every 6 hours (if indicated depending on glucose tolerance)

☑ DAY 2, 3: Basic Metabolic Panel, Magnesium, Phosphate

☑ EVERY SUNDAY/THURSDAY: Comprehensive Metabolic Panel, Magnesium, Phosphate, Prealbumin

☑ DAY 1 & EVERY SUNDAY: 24 hour Urine for Urea Nitrogen (excludes dialysis patients)

STEP TWO: Select Formula (Central Venous Access Required)

• All TPN solutions contain 19 mEq Sodium and 36 mEq Acetate per 50 grams Amino Acids

☐ STANDARD SOLUTION

☐ TOTAL NUTRIENT ADMIXTURE

☐ CUSTOM FORMULA

Amino Acids 50 grams/liter  Amino Acid 50 grams/liter  Amino Acids grams/day

Dextrose 200 grams/liter  Dextrose 175 grams/liter  Dextrose grams/day

Lipids** 25 grams/liter  Lipids** grams/day

☐ LIPIDS** 20% 250 mL over 12 hours may be administered peripherally **contraindicated with an egg allergy

STEP THREE: Select Rate (initial recommended rate is 30-40 mL/hour)

Total Volume: over 24 hours -OR- Cycle over: hours

(OR ________ mL/hour)

STEP FOUR: Select Electrolytes

☐ Standard Electrolytes (contains mEq per liter: Sodium 55, Potassium 20, Calcium 4.5, Magnesium 5, Chloride 35, Acetate 29.5 and Phosphate 15 mmol)

☐ Individual Electrolytes

☐ Additional Electrolytes

ADDITIVES (PER DAY)

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Calcium Gluconate mEq/day  5 - 15 mEq/day

Magnesium Sulfate mEq/day  8 - 24 mEq/day

Potassium Phosphate mmol/day  Phosphate 20 - 40 mmol/day*

Sodium Phosphate mmol/day  P H or Carbon Dioxide dependent

Potassium Chloride mEq/day  1 - 2 mEq potassium/kg/day

Potassium Acetate mEq/day  pH or Carbon Dioxide dependent

Sodium Chloride mEq/day  *see back for phosphate conversion

Sodium Acetate mEq/day  pH or Carbon Dioxide dependent

STEP FIVE: Select Additional Additives

• Multivitamins (MVI) and Trace Elements will be added per protocol (see back)—MVI contains 150 mcg Vitamin K

ADDITIVES:

Human Insulin units/day  Zinc mg/day  Other:

Vitamin K mg/day  Famotidine mg/day

☐ TORB From:  Date: Time:

Signature:

ORDERS NOTED BY RN Date: Time:

Signature:

PHARMACY USE ONLY

Calcium/Phosphate Limit Checked:

PHARMACY USE ONLY

Calcium/Phosphate

Limit Checked:

Date: Time:

Print Name/Stamp:

Signature:

TORB = Telephone Orders Read Back

Place STAT barcode sticker within this box only on form copy being scanned

ORDERS

KH00211 Rev. 05/13/10
ADULT PARENTERAL NUTRITION ORDERS 2 of 2

AVERAGE DAILY RECOMMENDATIONS

<table>
<thead>
<tr>
<th>NUTRIENT</th>
<th>ACUTE CARE</th>
<th>CRITICAL CARE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calories</td>
<td>25 - 30 kilocalories/kg/day</td>
<td>25 kilocalories/kg/day</td>
</tr>
<tr>
<td>◊ Refeeding</td>
<td>15 - 25 kilocalories/kg/day</td>
<td>15 - 25 kilocalories/kg/day</td>
</tr>
<tr>
<td>◊ Obese</td>
<td>15 - 20 kilocalories/kg/day</td>
<td>15 - 20 kilocalories/kg/day</td>
</tr>
<tr>
<td>Protein</td>
<td>0.8 - 1 gram/kg/day maintenance 1.2 - 2 grams/kg/day</td>
<td>1.5 - 2.2 grams/kg/day</td>
</tr>
<tr>
<td>Dextrose</td>
<td>less than 5 mg/kg/minute</td>
<td>less than 4 mg/kg/minute</td>
</tr>
<tr>
<td>Lipids</td>
<td>less than 2.5 grams/kg/day</td>
<td>0.4 - 0.75 grams/kg/day</td>
</tr>
</tbody>
</table>

◊ All recommendations are intended for initial estimation only. All parenteral nutrition solutions should be tailored per individual patient response

MULTIVITAMIN AND TRACE ELEMENT PROTOCOL

• Multivitamins will be added daily to all TPN bags. Trace elements will be added daily except if End Stage Renal Disease, then it will be added every Tuesday and Friday

GLYCEMIC MANAGEMENT

• Human Insulin recommended to start with 1 unit for every 10 grams of dextrose if hyperglycemic (mild to moderate).
• Intensive Care Unit (ICU) patients and those with significant hyperglycemia should be managed with an insulin infusion.

PHOSPHATE CONVERSION

• 1 mEq Potassium Phosphate = 0.68 mmol Phosphate
• 1 mEq Sodium Phosphate = 0.75 mmol Phosphate