

TPN guidelines (follow NICU policies)

Questions:

Total Fluids (TF) need for the day = ml/kg/day (subtract feedings volume from TF)

Electrolytes = any abnormalities (low or high)

How much: glucose, protein and fat

Answers:

Total Fluids need for the day = ml/kg/day (80 day1, 90 day 2, 100 day 3 and so on max 160)

Electrolytes: Na 135-140, K 4-5.5, Ca 8-9, HCO₃ 22-25, Cl 95-100 (see labs normal range)

Cations: Na- start 1-2 meq/kg/day, K- 1 meq/kg/day, Ca 2-3 meq/kg/day, Mg 0.4

Anions: Acetate, Phosphate, Cl – adjust as per electrolyte

How much: Glucose start 10%, Protein start 3 g, Fat start 2 gram on day 1

Glucose can be adjusted as 7.7% to 12.5% depending upon serum glucose level

(GIR-glucose infusion rate range from 5-8 mg/kg/min- calculated electronically

Or by formula = Rate x % Dex divided by weight (kg) x 6 OR rate x % Dex divided by 144)

Computer Order Entry:

Example: Follow the fields

Enter weight (use current weight if > birth weight)

Enter the type of line used (Umbilical, PIV or PICC)

Total Fluids: (Subtract Feedings volume, Fat is a separate order–subtract fat volume from TPN)

Then Glucose/ Protein% and gram/kg/day

Then Select electrolytes, choose the combination of Cations and anions as per Electrolytes

Add trace elements, add Multivitamins, add heparin for central lines)

N.B. Start feeds ASAP (follow unit protocol)

In premature infants use fortified human milk, advance per protocol, adjust total fluids