

Nutrition Assessment

(A) Assessment

Diagnosis(Dx): Abdominal gunshot wound

Pertinent Medical/Surgical (Sx): damage-control laparotomy, gastric repair, control of liver hemorrhage, and resection of proximal jejunum. Day 2: Removed packs, reestablished bowel continuity, placed VAC & 3 Jackson-Pratt drains. Day 3: gastrojejunostomy tube inserted w/jejuna limb shortened and retrograde jejunostomy tube for drainage. Day 7: Abdominal washout, insertion of distally placed J-tube & VAC change, multiple washouts and reapplication of wound VAC

Diet History: Prior to admission, normal diet with several beers. Day 2: TPN, dextrose 300g and amino acids 170 g/day. Day 4: dextrose 350g, amino acids 180g/day. Day 10: 250 mL lipids, 3 x per week added. Day 11: EN with 1.5 kcals/mL & 94 g pro/L using jejunostomy at 10 mL/hr. Day 12: EN advanced to 15 mL/hr. Day 13: EN to 20 mL/hr., reduced to 15 mL/hr d/t anastomotic leak

Food Allergies: NKFA

Herbals/Supplements: N/A

Diet Prescription (Rx): TPN (dextrose 350 g, AA 180 g, IL 250 mL 3 x per week) & EN @ 15 mL/hr (1.5 cal/mL & 94 g protein/L)

Pertinent Medications: morphine, lorazepam, esomeprazole, meropenem, vancomycin, propofol @ 35 mL/hr (d/c'd on day 10)

Pertinent Labs: **LOW:** Albumin(1.4 g/dL), Total protein(5.2 g/dL), Prealbumin(3.0 mg/dL), Transferrin (190mg/dL), PO₄(2.2 mg/dL), HDL-C (40mg/dL), RBC (3.2 x 10⁶/mm³), HCT (35%), PT (9 sec). **HIGH:** Sodium(146 mEq/L), Osmolality (317 mmol/kg/H₂O), Glucose(164 mg/dL), BUN (23 mg/dL), Creatinine (1.4 mg/dL), ALT (435 U/L), AST (190 U/L), Alk phos(540 U/L), CPK(177 U/L), CRP(245 mg/dL), LDH (750 U/L), VLDL (110 mg/dL), LDL(140 mg/dL), TG(274 mg/dL), HbA_{1c}(7%), WBC (15.2 x 10³/mm³)

Bowel History (Hx): N/A

In/Out (I/O): 1800/2215

Accu Check: 145-175 mg/dL

Skin Condition: Intact: Warm, moist.

Ht: 70 in. **Wt:** 242 lbs (110 kg)

UBW: 225 lbs (102.3 kg) **%UBW:** 108%

IBW: 150-182 lbs **%IBW:** 146%

BMI: 32.3 kg/m²

% PO: NPO

Estimated Nutrition Needs: (pgs. 720)

3,580-4,100 kcals (35-40 kcals/kg)

120-155 g protein (1.2-1.5g protein/kg)

3,580-4,100 ml fluid (35-40 mL H₂O/kg)

(D) Nutrition Diagnosis: Impaired nutrient utilization

Related To: metabolic stress and GI tract injury resulting in resection of proximal jejunum

As Evidenced By: altered lab values (Glucose 140 mg/dL, CRP 220 mg/dL, TG 265 mg/dL)

Nutrition Diagnosis: Increased protein and energy needs

Related To: to gunshot wound to the abdomen and multiple traumas

As Evidenced By: metabolic cart measurement: REE 3,657 and altered lab values (ALT 435 U/L, AST 190 U/L, Alk Phos 540 U/L, CPK 177 U/L)

(I) Nutrition Intervention Prescription:

Nutrition Goals:

Goal: Ensure that the DRI of fat soluble vitamins (A,D,E,K) are being met. Ensure adequate amounts of amino acids, small peptides, and monosaccharides are being met as well.

Intervention: Supplement EN and TPN regimen with fat-soluble vitamins to ensure adequate intake, supplement EN formula with glutamine (0.3 – 0.4 g/kg), supplement EN formula with branched-chain amino acids such as leucine or isoleucine to help decrease catabolism of skeletal muscle and spare other needed nutrients

Goal: Increase protein intake to 1.7 – 2g/kg (174g - 205g/day) and energy needs to 3,580 - 4,092 kcals

Intervention: Alter TPN and EN prescriptions until a sufficient amount of calories are being supplemented, supplement EN formula with glutamine (0.3 – 0.4 g/kg), supplement EN formula with branched-chain amino acids such as leucine or isoleucine to help decrease catabolism of skeletal muscle and spare other needed nutrients.

(M/E) Monitoring/Evaluation

High Nutritional Risk (1-2 days) Moderate Nutritional Risk Low Nutritional Risk