

Surgical Critical Care Nutrition Guideline Summary

Initial Nutrition Evaluation

- Resuscitation goals met?
 - If no, continue resuscitation
 - Consult Nutrition Service
 - Consider TPN if gut not accessible ≥ 5 days
 - GI Stress Ulcer Prophylaxis – refer to unit specific protocol
- All patients should have nutrition regimen by day 5

Enteral Nutrition (EN)

- Initiate by 48-72 hours
 - If not at 70% goal by day 4, consider combination TPN/TEN (refer to protocol)
- Gastric access confirmed by radiography initially preferred
 - OGT, NGT, PEG
- Post-pyloric tube placement confirmed by radiography
 - DHT placement (if unsuccessful after 2 attempts endoscopic placement, Naso-jejunal or PEJ or reconsider gastric feeds)
 - Indications
 - Gastric outlet obstruction
 - Gastroparesis with persistent high GRV despite prokinetic agents or recurrent emesis
 - Severe active pancreatitis (endoscopic placement for jejunal feeds)
- Long-term access for patients requiring TFs > 4 weeks
 - PEG, PEJ

Disease based enteral formula (see page 10):

- Critically ill (non-septic) in SICU/NCU or burn/trauma
 - Impact Glutamine
- Sepsis or post-operative
 - Osmolite 1.2
- Renal failure (on CRRT or $SCr > 2.5$)
 - Magnacal Renal
- Acute pancreatitis, open abdomen, malabsorption, or 3 system organ failures
 - Peptinex DT
- DM or glucose intolerance
 - Diabetasource AC
- Hepatic failure (Child's A or >)
 - Nutri-Hep

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- Open abdomen or burn/large wounds?
 - Ascorbic acid (Vitamin C) 500mg po/pt for 10 days
 - Vitamin A 10,000 iu po/pt for 10 days
 - Zinc 220mg po/pt for 10 days
 - Oxandrolone 10mg po/pt twice daily

Nutritional Goals (see pages 13-14):

- Caloric Goals - 25-35 kcal/kg
 - Use IBW if actual BW is > IBW but < 120% IBW
 - Adjusted weight if 120% over IBW
 - Actual weight if actual weight < IBW
- Protein needs - 1.5-1.8 gm/kg
 - Use IBW if obese or normal weight, actual weight if <IBW
 - Renal Failure
 - Dialysis (full protein) - 1.5-1.8 gm/kg/d
 - Non-oliguric (reduced protein) - 1-1.3 gm/kg/d and follow daily BUN
 - Oliguric (reduced protein) - Start at ≤ 0.6 gm/kg/d and follow daily BUN
 - Severe Hepatic Encephalopathy
 - 0.6 gm/kg/d x 3 days, then increase to ≤ 1.2 gm/kg/d; reduce if mental status deteriorates
- Fluid Needs - 1 ml/kcal baseline
 - Cover Additional losses – (ie. fever, diarrhea, GI output, tachypnea)
 - Fluid restriction – CHF, renal failure, hepatic failure with ascites, CNS injury, and electrolyte abnormality

Nutrient Assessment (see pages 13-14):

- Gastric Residual Volume (GRV) – refer to protocol (page 14-18)
 - Intolerance defined as ≥ 300ml
- Glucose control – refer to unit specific protocol
- Obtain baseline pre-albumin and CRP levels at day 2 if anticipated ICU stay is greater than 3 days. Repeat and re-assess every Monday.
 - Refer to Wiz SCC Nutrition Monitoring Order Set

Weaning TPN (see pages 8-9):

- TFs tolerated at 50% of goal
 - Decrease TPN to ½ of goal and wean off TPN as TF rate advances to goal or per clinician judgment
- POs tolerated at 50% of goal, per calorie counts
 - Decrease TPN to ½ of goal and then weaned off per clinician judgment