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?
  o Ascorbic acid (Vitamin C) 500mg po/pt for 10 days
  o Vitamin A 10,000 iu po/pt for 10 days
  o Zinc 220mg po/pt for 10 days
  o Oxandrolone 10mg po/pt twice daily

Nutritional Goals (see pages 13-14):
• Caloric Goals - 25-35 kcal/kg
  o Use IBW if actual BW is > IBW but < 120% IBW
  o Adjusted weight if 120% over IBW
  o Actual weight if actual weight < IBW

• Protein needs - 1.5-1.8 gm/kg
  o Use IBW if obese or normal weight, actual weight if < IBW
  o 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
  o 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
  o Cover Additional losses – (ie. fever, diarrhea, GI output, tachypnea)
  o 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)
  o 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.
  o Refer to Wiz SCC Nutrition Monitoring Order Set

Weaning TPN (see pages 8-9):
• TFs tolerated at 50% of goal
  o 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
  o Decrease TPN to ½ of goal and then weaned off per clinician judgment

March 2005
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