Nutrition Guidelines for STICU/Trauma Floor

General
1. Nutrition will be assessed daily on all patients
2. **Limit NPO time for procedures. Patients with protected airways will continue enteral feeding until procedure.** Exceptions include PEG placement and procedures that require manipulation of the airway. Correct NPO orders entered by other services.

Diet:
1. Patients will receive regular diets. Starting with clear liquids is not necessary.
2. Post-operative patients should go straight to regular diets. Again, clear liquids are not necessary.

Enteral feeding (EN):
1. **Initiate EN within 24-48 hours of admission and within 24 hours of surgery.**
2. Maintain HOB at least 30 degrees
3. Provide 25-30 kcal/kg/day (normal weight patients)
4. Provide protein 1.2-2.0 g/kg/day of actual body weight. Poly-trauma and burns will receive at least protein 2.0 g/kg/day and some may require more.
5. Overt signs of GI contractility (bowel sounds, passing flatus or stool) are not required to initiate EN.
6. EN can be initiated prior to complete resuscitation and provided cautiously to patients receiving vasopressors.
7. EN can be provided in difficult post-operative situations such as ileus, intestinal anastomosis, open abdomen, and hemodynamic instability, but must be evaluated on a case by case basis.
8. Gastric residual volumes (GRV) may be monitored for no more than 24 hours when initiating EN for the first time and following enteric procedures or ileus. Not all patients will require monitoring of GRV. GRV monitoring is not necessary when starting EN on non-malnourished patients without intra-abdominal pathology, after 24 hours on EN, or when resuming EN that was once at goal. GRV should never be measured from small bowel tubes.
9. EN should not be held for GRV <500 ml. EN may be continued even if GRV is >500ml if no other physical signs (abdominal distention, cramping, nausea, vomiting, >5 loose stools/24h) of intolerance are present.
10. Follow volume-based protocol for titration of EN. Nurses will adjust EN rate to achieve a daily goal volume instead of an hourly goal. Please enter the goal volume in the order and indicate which titration protocol is appropriate
11. Fiber 10-20g/day in divided doses will be added to stable patients receiving standard formulas
12. Use arginine containing immune modulating formulations (Pivot) in patients with traumatic brain injury and post-operative patients requiring ICU.
13. Provide maintenance water as recommended by dietician.

Parenteral feeding (PN):
1. **Patients at low risk for malnutrition should have PN held for 7 days if they cannot receive EN.**
2. Malnourished patients and those at high risk for malnutrition should receive PN as soon as possible when unable to receive EN.
3. PN should be provided to patients that cannot meet >60% of energy needs for 7-10 days.
4. Transition to EN will occur as soon as possible.

Open abdomen:
1. Initiate EN with open abdomen unless bowel injury is present
2. Add protein 15-30g/L of exudate lost from open abdomen.
Major upper GI surgery:
1. PN should be initiated only when duration of NPO is expected to be >7 days.
2. Unless the patient is at high risk, PN should not be started for 5-7 days.

Sepsis:
1. Avoid PN in acute phase of severe sepsis or septic shock.
2. Initiate trophic feeding (10-20 kcal/h up to 500 cal/day) in patients with sepsis. Advance after 24-48h.

Bariatric patients:
1. Bariatric patients should receive high protein, low calorie diets
2. BMI 30-50: 11-14 kcal/day actual body weight
3. BMI >50: 22-25 kcal/kg/day ideal body weight
4. BMI 30-40: protein 2.0 g/kg/day ideal body weight
5. BMI >40: protein 2.5 g/kg/day ideal body weight
6. Thiamine should be administered prior to initiating dextrose containing fluids in those with a history of gastric bypass. Evaluate for other nutrient deficiencies.

Renal Failure:
1. Patients in renal failure should receive standard formulas and energy goals unless significant electrolyte disturbances develop.
2. Patients on CRRT should receive higher protein.

Hepatic Failure:
1. Patients in hepatic failure should have energy needs calculated on dry weight, not actual weight.
2. Standard formulas may be used.
3. Do not restrict protein.

Pancreatitis:
1. If mild, start regular diet
2. If moderate to severe, place feeding access and provide trophic feeds. Increase rate as tolerated.
3. EN is preferred to PN.
4. Jejunal feeds offer no benefit over gastric feeds.
5. Consider PN after one week of not tolerating EN.