

ICU GUIDELINE: ENTERAL NUTRITION (EN) - MANAGING THE REFEEDING SYNDROME

Refeeding Syndrome
 The metabolic and physiologic processes that occur as a consequence of depletion during starvation and repletion during refeeding. May result in profound *hypophosphatemia, hypokalemia, hypomagnesemia* as well as sodium retention/fluid overload, and thiamine deficiency.

IS PT MALNOURISHED?
Risk factors (any or all)

- NPO/clear fluids $\geq 7-10$ days
- Chronic ETOH use/abuse
- $\geq 10\%$ wt loss over past 6 mths
- Physical signs of malnourishment

NO

YES

Initiate/titrate EN to caloric goal as per protocol (refer to Calorie Calculator for goal rate).

1) Obtain routine blood work including serum K, PO₄, Mg prior to EN initiation. Follow serum K, PO₄, Mg daily and for 2 days after goal rate achieved. Replete as per protocol. *Note: correct low serum K, PO₄, Mg prior to EN initiation*

2) Initiate and titrate EN as follows (see table below):
Day 1-2: Goal kcal - 20 kcal/kg.
Day 2-3: Goal kcal - 25 kcal/kg.
Day 3-5: Goal kcal – final goal rate. (See Calorie Calculator).

3) Provide thiamine (100 mg) daily x 5 - 7 days.

TABLE A: 1.2 kcal/ml Feed

Wt (Kg)	20 kcal/Kg	Feed rate ml/hr	25 kcal/Kg	Feed rate ml/hr
40	800	30	1000	35
50	1000	35	1250	45
60	1200	40	1500	50
70	1400	50	1750	60
80	1600	55	2000	70

TABLE B: 2 kcal/ml Feed

Wt (Kg)	20 kcal/Kg	Feed rate ml/hr	25 kcal/Kg	Feed rate ml/hr
40	800	15	1000	20
50	1000	20	1250	25
60	1200	25	1500	30
70	1400	30	1750	35
80	1600	35	2000	40

NOTE: GUIDELINE ONLY

Slower feed rate progression may be required in the following situations:
 1) Severe malnourishment.
 2) Absence of metabolic stress.
 3) Inability to access bloodwork daily.
 4) Expected delayed electrolyte replacement.