

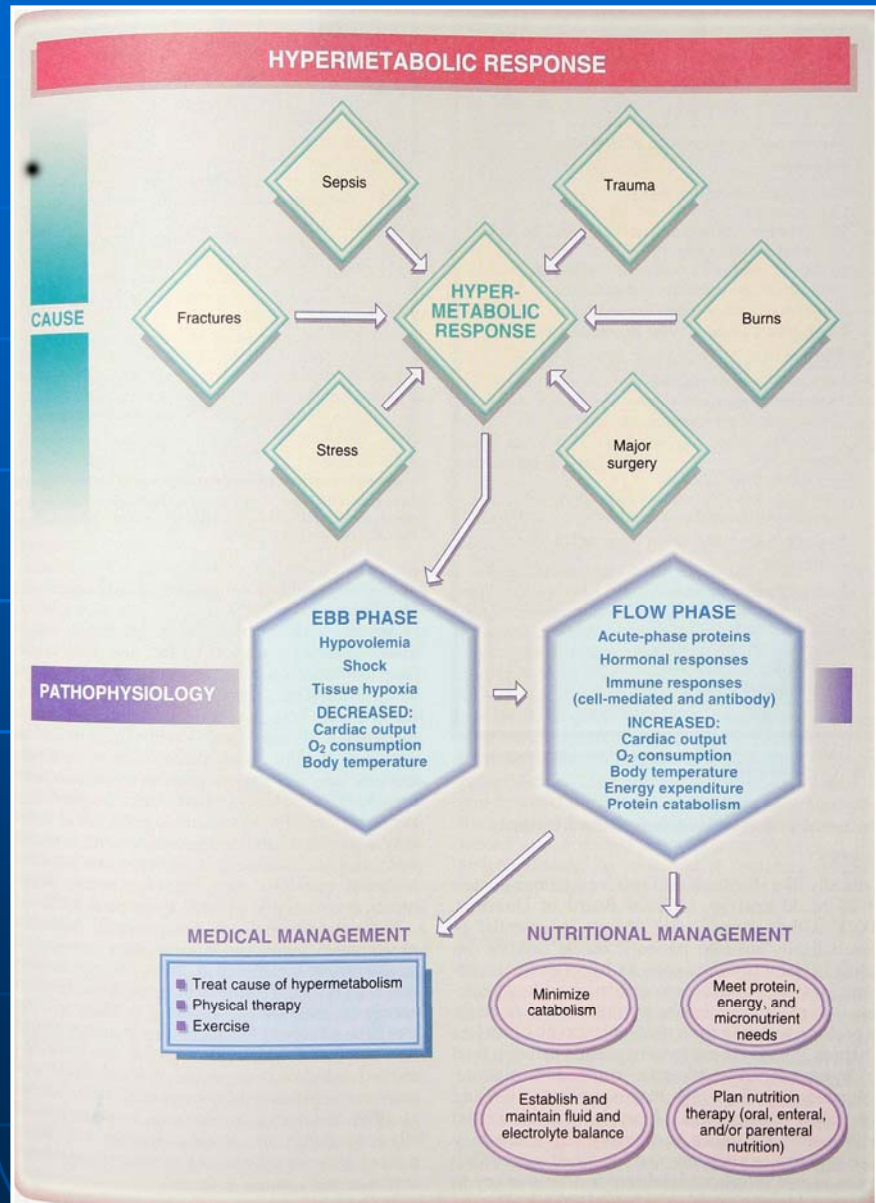
Hong Kong Sanatorium & Hospital

Hong Kong, PRC

The Adequacy of Nutrition Intervention in Intensive Care Unit

Dietetic Services and Intensive Care Unit
Jeannie Poon, Dietitian

Flowchart of hypermetabolism to stress



Source: Mahan & Escott-Stump, 2004

Malnutrition in ICU

■ Background

- Hemodynamically unstable
- Medical complications
- No compulsory dietetic referrals
- Nutrition support is of low priority
- In some cases, heavy reliance on TPN
- Nutrition Support Team not available

■ Objectives

- To determine the prevalence and risk level of malnutrition
- To examine the adequacy of doctor's referral

Data collection

- Subjects: all ICU patients including new patients admitted or patients transferred from wards
- Method: Using a nutritional screening form modified from the SGA
- Period: Mar 15 to Jun 14, 2006
- Results: 41 results collected

Nutritional Screening Tool

養和醫院
HONG KONG SANATORIUM & HOSPITAL
Dietetic Services

姓名
Name
年歲
Age
房 / 床號
Ward / Bed No.

性別
Sex
醫院號數
Hospital No.

Nutritional Indicators

| | 0 point | 1 point | 2 points |
|-----------------------|--|--|---|
| 1. Body weight | <input type="checkbox"/> Stable | <input type="checkbox"/> Unplanned wt loss of >10% in 6 months | <input type="checkbox"/> Unplanned wt loss of >5% in 1 month |
| 2. Appetite | <input type="checkbox"/> No changes | <input type="checkbox"/> Mild changes | <input type="checkbox"/> Major changes |
| 3. Bowel function | <input type="checkbox"/> Regular | <input type="checkbox"/> Constipation not addressed or Not controlled | <input type="checkbox"/> Chronic diarrhea <input type="checkbox"/> Persistent nausea/vomiting |
| 4. Functional status | <input type="checkbox"/> Eats independently Or Fed w no concern | <input type="checkbox"/> Inability to feed self | <input type="checkbox"/> Chewing, swallowing or Choking problems |
| 5. Usual intake | <input type="checkbox"/> No changes in intakes | <input type="checkbox"/> NPO ≥ 3 days | <input type="checkbox"/> NPO ≥ 5 days |
| 6. Bloodworks | <input type="checkbox"/> Serum albumin >30 g/L | <input type="checkbox"/> Serum albumin <30 g/L | <input type="checkbox"/> Serum albumin <25 g/L |
| | <input type="checkbox"/> Pre-albumin >0.15 g/L | <input type="checkbox"/> Pre-albumin 0.135 - 0.15 g/L | <input type="checkbox"/> Pre-albumin <0.135 g/L |
| | <input type="checkbox"/> Hemoglobin >12 g/dl(M) >10 g/dl(F) | <input type="checkbox"/> Hemoglobin <12 g/dl(M) <10 g/dl(F) | <input type="checkbox"/> Hemoglobin <10 g/dl(M) < 8 g/dl(F) |
| 7. Food intolerance | | <input type="checkbox"/> One type of food allergy | <input type="checkbox"/> More than one food allergy |
| 8. Medical conditions | | <input type="checkbox"/> Diabetes mellitus - controlled | <input type="checkbox"/> Carcinoma <input type="checkbox"/> Cardiovascular disease <input type="checkbox"/> Diabetes mellitus-uncontrolled |
| | | Ave Preprandial glu: 90-130mg/gl Peak Postprandial ave <180mg/gl A1c <7% | <input type="checkbox"/> Eating disorders <input type="checkbox"/> Liver disease <input type="checkbox"/> Renal failure <input type="checkbox"/> Delayed wound healing |
| | | <input type="checkbox"/> Stable tube feeding | <input type="checkbox"/> Feeding requires reassessment |
| | | <input type="checkbox"/> Edema | <input type="checkbox"/> Recent surgery within 1-2 months |
| 9. Miscellaneous | | | |

Total Score / Nutritional Risk Classification:

0 - 2 points
Not a Malnutrition Risk

3 - 5 points
Mild Malnutrition Risk

6 - 8 points
Moderate Malnutrition Risk

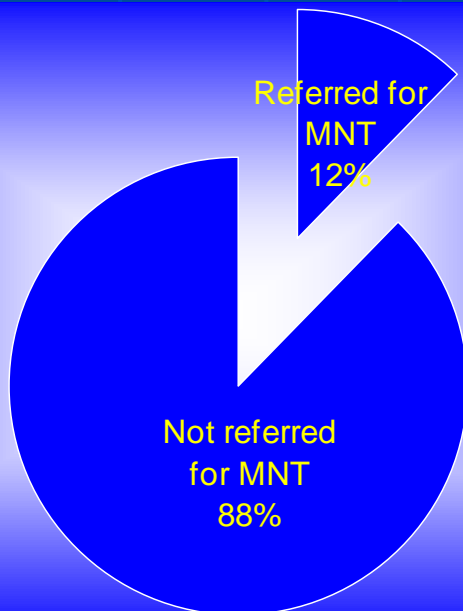
≥ 9 points
Severe Malnutrition Risk

Results

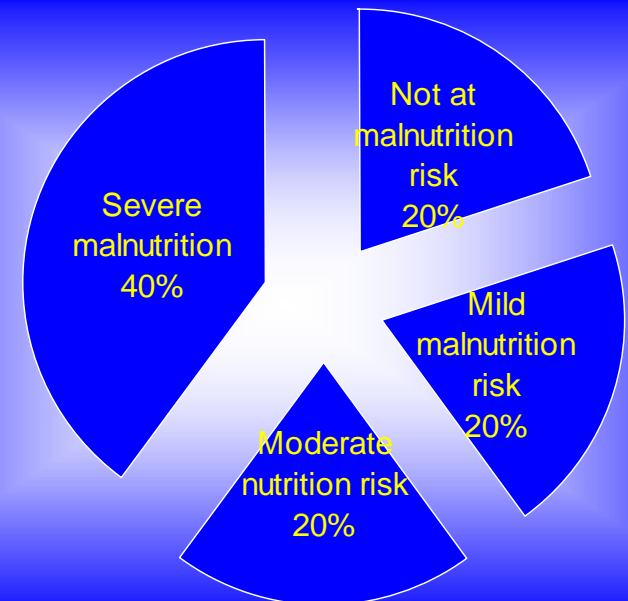
1. Malnutrition risks

| Total screening | Not at malnutrition risk | Mild malnutrition risk | Moderate malnutrition risk | Severe malnutrition risk |
|-----------------|--------------------------|------------------------|----------------------------|--------------------------|
| 41 | 18 (44%) | 11 (27%) | 9 (22%) | 3 (7%) |

2. MNT referrals



3. Malnutrition risk and MNT referrals



Conclusions

■ Further consideration

- A stage II study performed during Nov 11, 2006 to Jun 11, 2007 to assess the discrepancy of nutrition support given to patients who were not referred for dietetic consultations
- Raw data yet to be analyzed

■ Recommendations

- To provide compulsory dietetic referrals on all patients
- To offer free dietetic services for patients
- To develop ICU nutrition support protocol
- To establish a Nutrition Support Team

Thank you

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