Meeting nutritional needs of elderly patients in hospital by supplementing parenteral nutrition

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Introduction
Malnourished patients usually have longer length of stay (LOS), higher rate of complication and mortality. Hospital elderly patients are at risk of malnutrition which occurs when energy and protein intake are inadequate. Artificial nutrition support such as tube feeding or peripheral parenteral nutrition can be used to supplement poor oral intake.

Objectives
This study aimed to review patient energy and protein consumption in a group of elderly orthopedic patients before and after peripheral parenteral nutrition supplementation.

Methodology
Clinical data of all patients aged >65 (n=15, 9 females and 6 males; mean age 84; mean length of stay 53 days) referred to dietitians for parenteral nutrition support in orthopedic wards of Prince of Wales Hospital between Feb 2010 and May 2013 were retrospectively collected. Variables used for analysis included route of nutrition support, daily energy and protein requirement, total caloric and protein intake before and after administration of parenteral nutrition, age, gender and admission diagnosis.

Result
Results The mean energy and protein requirement in this group of patients were 1673 kcal and 70g respectively. Most of the patients were diagnosed with pressure ulcers. Despite dietetic intervention on enriching hospital meals and prescribing oral supplements, only 33% and 7% of the patients consumed >50% and >75% of their
energy requirement respectively. In terms of protein intake, 40% and 13% of the patients consumed >50% and >75% of their requirement respectively. Peripheral parenteral nutrition was administered in addition to hospital meals in order to improve nutrients intake. It was observed that 100% of patients were able to meet >75% of their energy and protein requirement after initiation of parenteral nutrition. Conclusion Nutrition support by supplementing parental nutrition is an alternative for the patients whose oral intake of nutrients over prolonged periods is insufficient to meet the nutrients requirement. Further study is recommended to investigate the relationship between improving nutrient intake and clinical outcome.