

# Parallel Sessions

**PS11.2 Evidence Based Nursing****14:30 Room 221**

## Optimisation of Enteral Nutrition in Intensive Care Units through an Evidence Based Approach

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### Introduction

Nutritional support is essential for critically ill patients; and enteral feeding is currently considered the best option for providing nutrition. However, inadequate enteral feeding continues to exist in intensive care units (ICU) worldwide. Many factors affect enteral nutrition (EN) and may be resulted in suboptimal nutritional support.

### Objectives

To develop an EN protocol that guides gastric residual volume (GRV) management; and (2) to minimise unnecessary interruption of nutrition delivery.

### Methodology

A workgroup was formed in January 2017. Members involved representatives from five local ICUs. EN protocol was formulated according to Johns Hopkins Nursing Evidence Based Practice model. Alignment of practice across ICUs was attempted.

### Results and Outcomes

Practice in nutritional intake calculation, EN commencement rate, GRV assessment frequency, GRV cutoff value and use of a prokinetic agent for intolerance were aligned across involved ICUs, but no consensus was reached for refeeding practice. 326 patients from a single ICU which piloted the protocol were studied (age=62.1±14.5; 74.8% mechanically ventilated; 56.7% surgical patients; 66.2% male). 156 patients received EN according to doctor's decision. 170 patients received EN according to an interdisciplinary protocol. No statistically significant difference in demographic data, mean ICU length of stay (9.08 days vs 8.11 days, P=0.50), mortality (18.0% vs 16.0%, p=0.64) and total EN delivery duration (6.82 days vs 5.43 days, p=0.29) was found between patient groups. Mean duration from EN commencement to nutritional target was 2.06 days. Daily calorie intake was similar between groups (18.03 vs 18.22, p=0.82). Both EN interruption due to high GRV and incidence of adverse events dropped from 16.7% to 12.9% and 8.3% to 5.3% after protocol implementation respectively.

The result was comparable with those ICUs which are already adopting EN guidelines. Protocol-driven EN delivery and GRV management can maintain nutritional target through a reduction in feeding interruption.