

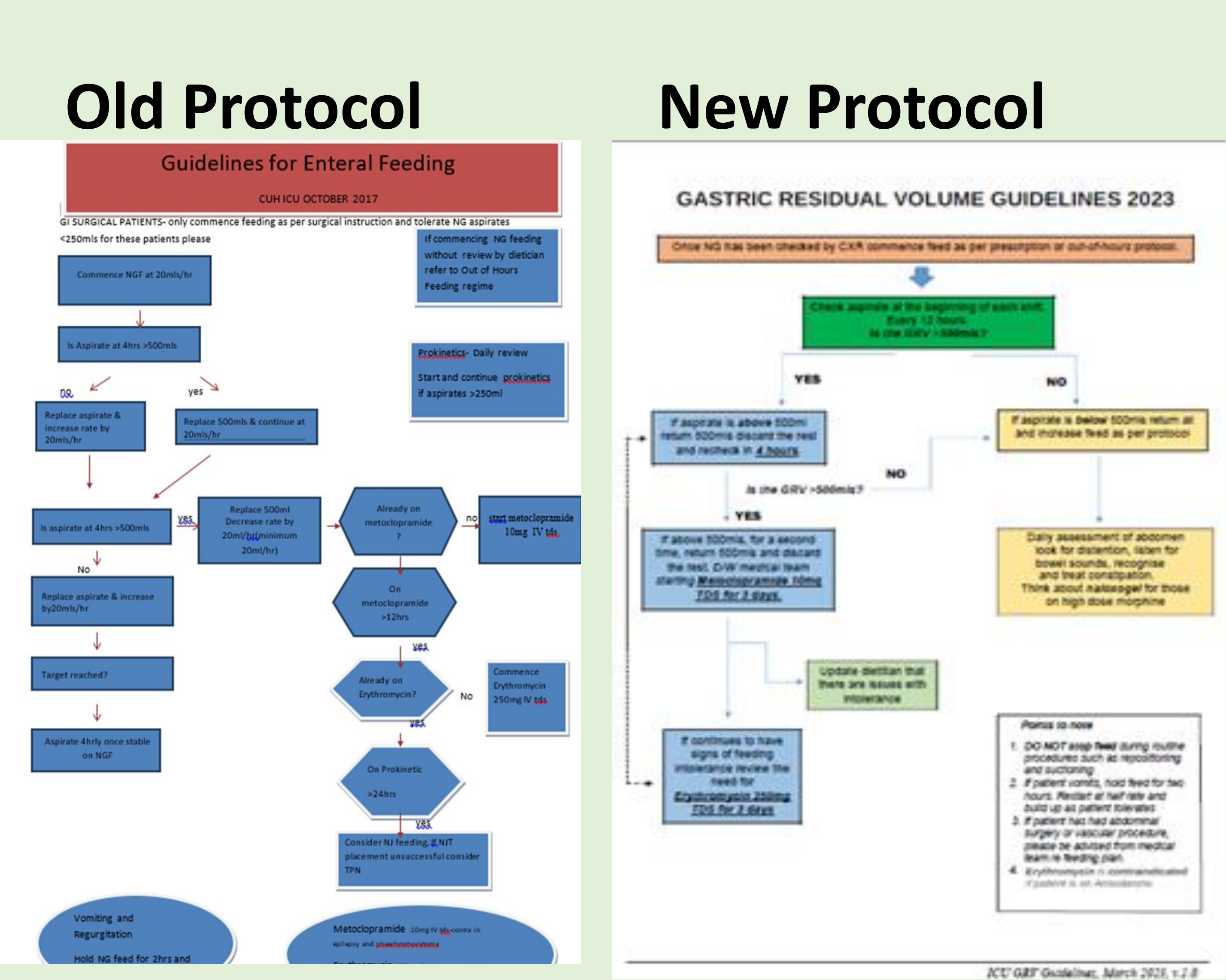
The impact of reducing the frequency of gastric residual volume monitoring on nutritional adequacy in critically ill patients

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Introduction

The introduction of indirect calorimetry in the intensive care unit (ICU) at Cork University Hospital (CUH) has increased awareness of the of importance of adequate nutrition in critical illness among all staff working in the ICU¹. Gastric residual volume (GRV) monitoring was highlighted as a potential area impacting nutritional adequacy from being achieved, which was confirmed by a baseline audit.

The aim of this study was to determine the impact of reducing the frequency of gastric residual volume monitoring on nutritional adequacy in critically ill patients.



Changes to Protocol

- frequency of GRV monitoring decreased from four hourly to once per shift.
- GRV cut-off for the commencement of prokinetics increased from one 250ml GRV obtained to two consecutive 500ml GRVs obtained.

Results

All patients that were fed with a wide bore nasogastric tube in both of the general ICUs during 2, 2 week periods are included in the analysis. The results are given in table 1.

Table 1.		
% Patients (number)		
Month/Year	November 2022 (n = 17)	June 2023 (n = 17)
Gastric residual volume protocol followed	47 (n = 8)	59 (n = 10)
Full prescribed feed achieved daily for 14 days	6 (n = 1)	29 (n = 5)

Conclusion

- Compliance with the new GRV protocol increased by 12%.
- The number of patients receiving 100% of their prescribed feed daily during the study period increased by 23% after the implementation of the new GRV protocol.
- Reduced frequency of GRV monitoring has lead to increased nutritional adequacy being achieved in critically ill patients at CUH.
- Further analysis of the data will be required to determine if any further positive outcomes e.g. decreased prokinetic use or adverse outcomes e.g. increased vomiting have occurred.