Early Initiation of Enteral Nutrition in the ICU patient
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Introduction
Critically ill patients are typically unable to maintain adequate nutritional intake to meet their metabolic demands. Additionally, patients admitted to an intensive care unit often have preexisting nutritional deficits. Numerous studies support implementation of an early enteral nutrition (EEN) protocol within the first 48 hours of admission to reduce infection, hospital length of stay, and mortality.

PICO Question
Population: Adult Critical Care Patients
Intervention: early enteral nutrition within 48 hrs
Comparison: patients not receiving early initiation enteral nutrition
Outcome: decreased length of stay
Question: In adult critical care patients, does initiating enteral nutrition within the first 48 hours of admission to the intensive care unit decrease the length of stay compared to not initiating feeding within 48 hours?

Methods
A literature search was conducted using CINAHL, EbscoHost, and PubMed databases. The initial search for early enteral nutrition and intensive care yielded 64 articles, 16 met the inclusion criteria and 3 were included for this project.

Keywords: adult critical care, intensive care, enteral nutrition, early enteral nutrition, protocols, nutrition assessment

Inclusion Criteria: Articles within 10 years, inpatient hospitals, adult critical care patients

Results

<table>
<thead>
<tr>
<th>Authors</th>
<th>Level of Evidence</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doig, G., Heighes, P., Simpson, F., Sweetman, E., &amp; Davies, A. (2009).</td>
<td>Level I Meta-Analyses</td>
<td>Treatment groups receiving EEN within 24-48 hours of admission showed reduced incidence of MODS, infection rates (c.diff), pneumonia, as well as decreased mortality rate compared to the control groups.</td>
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<tr>
<td>Rubinsky, M. D., &amp; Clark, A. P. (2012).</td>
<td>Level I Systematic Review</td>
<td>In critically ill patients with a functional GI tract, EEN within 48 hrs resulted in the preservation of GI tract integrity and immunity, reduced malnutrition, bacterial translocation, sepsis, and MODS. EEN counters the effects of GI dysfunction namely: gut-ischemia, hypo-perfusion, and microorganism reservoirs.</td>
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Discussion
Research findings are consistent with national and international EN practice guidelines and support the implementation of a protocol for initiation of enteral feedings within 48 hours of hospital admission. Some exclusions to these findings included hemodynamically unstable patients, patients with a decrease in gut motility, and proned patients. Data within these articles showed a reduction in the following complications: bowel ischemia, MODS, and immunosuppression of the gastrointestinal tract, hospital length of stay, mortality, infection rates, and VAP’s. A.S.P.E.N. guidelines recommend the use of nurse driven protocols to increase overall efficacy of EEN.

Conclusions
Hospitals should have a unit specific EEN policy based on patient populations and unit cultures. A.S.P.E.N. guidelines also recommend the use of nurse driven protocols to increase overall efficacy of EEN. Some studies suggest that simply starting EN at a slow rate while specific patient needs are unknown is more beneficial to the patient rather than not initiating them at all. Overall, EEN is a fundamental component of health maintenance and improved patient outcomes.

References