The PEP uP (Enhanced Protein-Energy Provision via the Enteral Route Feeding Protocol) Collaborative is designed to foster a network of clinicians committed to the optimal delivery of enteral nutrition in the ICU. The aim of this collaborative is to provide practical tools and strategies to improve the delivery of enteral nutrition, including a volume-based feeding protocol (The PEP uP Protocol), along with additional resources and education of the multidisciplinary team. This initiative will provide dietitians, nurses, and physicians the opportunity to improve current nutrition practices, resulting in better patient outcomes. This initiative will also enable these practitioners to further their role as nutrition educators in the ICU.

**Background:** The PEP uP protocol is designed to enhance the delivery of protein and energy to critically ill patients, particularly in the early phase of critical illness. The volume-based feeding approach involves prescribing a 24-hour volume goal, rather than an hourly rate. The bedside nurse may then adjust the hourly rate as needed (e.g. if feeds are interrupted due to procedures) to ensure that the 24-hour volume goal is achieved. We recently completed a cluster randomized controlled trial of 18 ICUs across North America and demonstrated that the use of the PEP UP protocol resulted in significantly more total protein and calorie delivery than compared to baseline and compared to the control group in the follow up phase. There were no differences in complication rates, and nurses considered the protocol to be safe and easy to use¹. In 2012, we started a Canadian PEP UP Collaborative with additional ICUs in Canada to further refine our tools and increase our experience with the PEP uP protocol. We now invite US ICUs to consider joining our US PEP uP collaborative which will start in Spring 2014.

**Who will participate and what we provide?**

Four ICUs in the US will be chosen to participate in Tier 1 of this initial collaborative as described below:

**Tier 1 sites will receive:**
- a visit and presentation from a member of the Critical Care Nutrition team²
- access to educational DVD presentations to train their multidisciplinary team
- supporting tools such as visual aids and protocol templates
- a PEP uP starter pack provided by Nestle Health Science, including a supply of Peptamen Bariatric®, and Beneprotein®. *If you have concerns about receiving the formula or if its use in your ICU will be a barrier to you implementing the PEP uP protocol, you may qualify as a Tier 2 site*
- access to a member of the Critical Care Nutrition team for support in implementing the protocol
- access to an online discussion group around questions unique to the PEP-UP protocol and
- a detailed site report, showing nutrition performance, after participating in the Nutrition Audit in 2014³

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² Critical Care Nutrition is led by Daren Heyland MD, Queen’s University Kingston Canada.
³ The Nutrition Audit (International Nutrition Survey) will be open in 2014 for any site wishing to audit their nutrition practices.

*Peptamen Bariatric contains 1.0 Kcal/ml, 37% protein, 31% carbohydrate, 32% fat.*
The US PEP UP Collaborative
An exclusive opportunity for Intensive Care Units in the United States

Tier 2 sites may also join the collaborative and will receive:
- access to educational DVD presentations to train their multidisciplinary team
- supporting tools such as visual aids and protocol templates
- No PEP UP starter pack and will use a formula of their choice
- access to a member of the Critical Care Nutrition team for support in implementing the protocol
- access to an online discussion group around questions unique to the PEP-UP protocol
- a detailed site report, showing nutrition performance, after participating in the Nutrition Audit in 2014

What you will be expected to do?
If chosen as one of the four Tier 1 ICUs, you will need to adopt the following:
- PEP uP volume-based feeding protocol
- Use the tools, resources and products provided
- Participate in the initial site visit and education component
- Participate in the online discussions
- Share your experience with other ICUs in the collaborative and with your local ICU administration
- Participate in the Nutrition Audit (similar to the International Nutrition Audit) in 2014, several months after the protocol has been successfully implemented

NOTE:
- There is no payment or exchange of funds for this study.
- You will be responsible for checking with your local Institutional Review Board to assess if an ethics review is required for participation in the Collaborative or the Nutrition Audit 2014.
- A formal contract with signatures from your institution and Nestle Health Science will be needed prior to initiation of the project at your site. See attached template.
- Sites interested in applying to the PEP UP Collaborative must provide the necessary resources to implement the protocol and collect the data for the Nutrition Audit in 2014

Eligibility Criteria
Tier 1 sites:
- Must be an ICU with at least 8 beds
- Must have a core nutrition team— including a dedicated ICU dietitian, physician champion and nursing champion, plus support from their administration to engage in this collaborative
- No previous participation in the PEP UP study/protocol or other volume based protocols
- Must be willing to use Peptamen® Bariatric® and Beneprotein® (Beneprotein® is to be used when protein needs are not met from the enteral formula) provided by Nestle Health Science for the PEP UP protocol
- Must have participated in the International Nutrition Survey in 2013 and willing to repeat data collection after the implementation of the PEP UP Protocol in 2014.
Tier 2 sites:
✓ Must be an ICU with at least 8 beds
✓ Must have a core nutrition team— including a dedicated ICU dietitian, physician champion and nursing champion, plus support from their administration to engage in this collaborative
✓ No previous participation in the PEP UP study/protocol or other volume based protocols
✓ Must be willing to participate in the Nutrition Audit 2014 after the implementation of the PEP UP Protocol

Evaluation Process
Applications will be reviewed and ranked by the Critical Care Nutrition team. Ranking will be based on the following:
1. Letter of Interest
2. Number of tube fed patients managed daily in the ICU (% total patients)
3. Participation in previous quality improvement initiatives in nutrition

The top four applications will be notified via email and will have to accept the invitation to participate in the program within the specified deadlines (to follow).

To apply for this opportunity please complete the following and send back by February 21st 2014:
• Application Form – attached (page 4)
• Letter of Interest & Signature – attached (page 5)

The application is due by February 21st 2014

Any questions?
Please contact: Rupinder Dhaliwal Clinical Evaluation Research Unit, Kingston General Hospital.
email dhaliwar@kgh.kari.net
# The USPEPUP Collaborative

## Application Form

<table>
<thead>
<tr>
<th>Applicant/Key Contact Name:</th>
<th>Date:</th>
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<tbody>
<tr>
<td>Signature</td>
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<td>Phone:</td>
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<tr>
<th>Type of ICU (or other pertinent info)</th>
<th>Med</th>
<th>Surg</th>
<th>Med/Surg</th>
<th>Other</th>
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<td>Type of Hospital:</td>
<td>Community</td>
<td>Academic</td>
<td>Dietitian Full Time Equivalent:</td>
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<td>(1.0 = equivalent of 1 full time dietitian in ICU)</td>
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<tr>
<td>Number of ICU Beds:</td>
<td>Average % of ICU patients receiving EN:</td>
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<td>Facility Address:</td>
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<td>Name of ICU:</td>
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<td>Name of Physician Nutrition Champion:</td>
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<td>Name of Nurse Nutrition Champion:</td>
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<tr>
<td>Have you participated in previous International Nutrition Surveys or other nutrition QI initiatives in your ICU?</td>
<td>Yes</td>
<td>No</td>
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<td>If yes, indicate name and year(s):</td>
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## Application Deadline: February 21st 2014

*All applications will be reviewed by appointed personnel at Critical Care Nutrition and will be kept confidential.*

Please submit pages 4 and 5 of your completed application and letter of interest to Rupinder Dhaliwal via email to dhaliwar@kgh.kari.net
The US PEP uP Collaborative
Letter of Interest and Signatures

In 500 words or less, please describe your interest in participating in the PEP uP Collaborative. In addition, please indicate why you believe your ICU should be chosen to participate (may attach additional pages if needed).

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<tr>
<th>Have your Medical Director and Nursing Director ICU confirm that he/she will support you in this initiative and ask them to indicate the nature of this support in the section below.</th>
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<tbody>
<tr>
<td><strong>Name of Medical Director:</strong></td>
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<tr>
<td><strong>Name of Nursing Director:</strong></td>
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<tr>
<td><strong>Confirmation of the nature of support provided by Medical Director or Nursing Director:</strong></td>
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<tr>
<td><strong>Signatures and date:</strong></td>
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</tbody>
</table>

__________________________  __________________________
(Medical Director)  (Nursing Director)