



**Nilesh M. Mehta**, MD, DCH  
Associate in Critical Care Medicine  
Associate Director, Quality Improvement  
Department of Anesthesia, Perioperative and Pain Medicine  
Children's Hospital, Boston,  
Bader 634, 300 Longwood Ave,  
Boston, MA 02115

Email: [nilesh.mehta@childrens.harvard.edu](mailto:nilesh.mehta@childrens.harvard.edu)  
Tel: 617 355 7327  
Fax: 617 730 0453

## **International Study of Nutrition Therapy in the Critically Ill Child: 2009**

Benchmarking practice, illuminating gaps and examining outcomes

Dear Colleague,

2 April 2009

We are writing to elicit your participation in an upcoming international study of nutritional practices in Pediatric Intensive Care Units (PICUs) throughout the world. This study is the first step in a multicenter quality improvement initiative geared at optimizing nutrition therapy in children in the critical care setting.

As you may be aware, the adult critical care community has successfully conducted similar international audits in 2007 and 2008. In recent years, we have been acutely aware of the significant gaps in evidence behind many of our nutrition support strategies in the PICU. There is some degree of heterogeneity in our bedside practice pertaining to nutrient delivery and deficiencies remain over the years, with potential for impact on clinical outcomes. In response to these concerns, we have initiated this unique multicenter approach to address these issues as a wider international community. This multistep process will involve examining our practices in the first instance. Using the already validated remote data capture tool, we intend to conduct a cohort study that will allow examination of nutrition therapy in mechanically ventilated children admitted to the PICUs around the world. The start date for this study is **Wednesday, 16<sup>th</sup> September 2009**. The results of this survey will be presented at the American Society of Parenteral and Enteral Nutrition (ASPEN) Clinical Nutrition Week to be held in Las Vegas, NV, on February 9-12, 2010.

Participating in the 2009 international survey will allow each PICU to compare nutrition practices to other PICUs within their country/region and across other countries. Such comparisons will illuminate differences, identify strengths and weaknesses, highlight opportunities for improvement, and raise questions for future research. The study provides a unique opportunity to come together and create a platform which will allow consensus

based practice modifications and future research and quality improvement in nutrition therapy in the PICU. This study is being conducted in collaboration with Dr. Heyland (Kingston, ON) who has already led 2 large international ICU nutrition practice studies in the recent past. The data collection tool has been modified for application to the pediatric ICU population. The study is supported by the P.A.L.I.S.I. Network of over 66 PICUs across North America and the World Federation of Pediatric Intensive Care Societies.

Participation involves a dietitian (or other practitioner) working at PICUs with greater than 8 beds collecting and entering data on a minimum of 15 PICU patients using a secure web-based data collection tool. A detailed instruction manual on the data collection procedures will be provided. The data to be collected includes hospital/PICU characteristics, patient characteristics, illness severity score, nutrition prescription, type and amount of nutrition received, length of stay, mortality, etc. Some data will need to be collected daily for a maximum of 10 days (from date of PICU admission onwards). The average time spent for data collection and entry is approximately 1 hour per patient. Unfortunately, we are unable to offer any financial remuneration for the data collection at this time. Rather, the participating ICUs will be provided with bench-marked performance reports that highlight their strengths and weaknesses in comparison to the recommendations of the A.S.P.E.N. guidelines and with the overall cohort in the database. We believe that this report will be of significant value to participating PICUs and the results will illuminate opportunities for improvement and ultimately, translate into improved clinical outcomes for our critically ill children.

Ethics approval for conducting the international nutrition survey 2009 may be required from most centers. Sites may wish to consult their local research ethics board as to the procedures that need to be completed. We will provide you with a template of the ethics board application submitted for this study at Children's Hospital Boston. Since this is a quality improvement initiative using retrospective data collected as part of routine care, we will be asking for consent waiver. No patient identifiers will be entered on the web-based data collection system and all data will be presented in aggregate form only, therefore patient confidentiality will not be breached.

Thank you for taking the time to consider our request; we hope that we can look forward to working with you on this exciting initiative. Please see our website [www.criticalcarenutrition.com](http://www.criticalcarenutrition.com) for further information and examples of the instruction manual and site reports from the adult critical care nutrition surveys.

We request you to kindly consider disseminating this announcement to the pediatric critical care team and the dietician group at your institute. Do not hesitate to contact me or Lori Bechard at [lori.bechard@childrens.harvard.edu](mailto:lori.bechard@childrens.harvard.edu) if you have any questions.

Yours Sincerely,



Nilesh M. Mehta, MD, DCH, Msc  
Faculty, Division of Critical Care Medicine



Daren K. Heyland, MD, FRCPC,  
Director, Clinical Evaluation

Department of Anesthesia, Perioperative and Pain Medicine  
Children's Hospital Boston Tel: 613-549-6666 x3339  
[Nilesh.Mehta@childrens.harvard.edu](mailto:Nilesh.Mehta@childrens.harvard.edu)



Lori Bechard, M.Ed., R.D., LDN  
Project Leader (Pediatric study)  
study)

Email : [lori.bechard@childrens.harvard.edu](mailto:lori.bechard@childrens.harvard.edu)  
Tel : 617 355 5293

Research Unit  
Kingston Gen. Hospital  
Kingston, Ontario  
email: [dkh2@queensu.ca](mailto:dkh2@queensu.ca)



Naomi E. Jones RD, MSc  
Project Leader (Adult

e.mail:[jonesn@kgh.kari.net](mailto:jonesn@kgh.kari.net)  
Tel : 613-549-6666 x2812