

## NEWS RELEASE

### Symposium Highlights the Importance of nutrition as Part of Treatment plan in Surgical Oncology

- Immunonutrition is clinically beneficial in cancer surgery patients
- Perioperative nutrition support is clinically proven to improve patient outcomes
- Malnutrition significantly affects treatment outcomes of patients undergoing GI cancer surgery

**Vevey, Switzerland, 26 September 2011** – The importance of immunonutrition as an integral part of the treatment protocol in cancer patients before and after surgery was highlighted at a Nestlé Nutrition Institute Satellite Symposium at the ESPEN 33<sup>rd</sup> Annual Congress in Gothenburg, Sweden. Opening the Congress on 3 September 2011, the Symposium heard from leading experts in head and neck cancer and gastro-intestinal (GI) cancer

Professor Pierre Déchelotte, Head of the Nutrition Unit and Supportive Care Department, University Hospital of Rouen, France, chaired the panel of speakers which included Professor Christophe Mariette of University Hospital of Lille, France, who highlighted the importance and value of immunonutrition as part of a treatment plan in GI cancer surgery; Professor Zeno Stanga of University Hospital Bern, Switzerland, discussed the nutrition and morbidity of colorectal cancer surgery patients; Professor Scott Magnuson of The University of Alabama, USA, discussed the factors associated with feeding tube dependence in head and neck cancer patients; finally Prof. Déchelotte spoke about the economic burden of diarrhea in cancer patients.

Summarising the symposium Prof. Déchelotte commented, “There is very strong evidence of the value of nutrition before and after surgery for cancer patients. We need to look at the use of nutritional and pharmacological approaches to improve patient quality of life.”

#### **Immunonutrition in GI cancer surgery**

Professor Mariette presented data on the value of immunonutrition for GI cancer surgery patients comparing enteral and parenteral nutrition after surgery showing that there are improved outcomes with enteral nutrition<sup>1</sup>. He noted that malnutrition is in 60-80% of oesophageal, gastric and pancreatic cancer patients and is a risk factor for reduced responsiveness to treatment and increased toxicity of chemotherapy as well as increased post-operative complications. Immunonutrition has also been shown to up-regulate host immune response, control inflammatory response and improve nitrogen balance and protein synthesis after injury. The therapeutic effects of immunonutrients include reduced infections in GI cancer elective surgery patients<sup>2</sup>.

Prof. Mariette noted that The French Society of Digestive Surgery recommends that all patients who are scheduled for elective surgery for GI cancer should be given immunonutrition preoperatively (for 5-7 days) and postoperatively for malnourished patients. Oesogastric cancer patients who are not classed as malnourished pre-operatively should receive oral immunonutrition for one week before surgery and malnourished patients (with a weight loss of more than 10%) should receive enteral immunonutrition for one week before surgery and also one week post-operatively.

“All efforts should be directed to include nutritional support as a strong therapeutic weapon in GI cancer patients,” Prof. Mariette said. “Oesophageal and gastric cancer patients benefit from perioperative immunonutrition, in both well nourished and malnourished cases”.

#### **Nutritional evaluation and morbidity in colorectal cancer surgery**

Professor Stanga clearly highlighted that nutritional risk and malnutrition significantly affect treatment outcomes of patients undergoing surgery, increasing the number of patient infections and complications, higher rates of organ dysfunction, and reduced wound healing<sup>3</sup>, reducing patient quality

of life<sup>4</sup>. Studies have shown that immunonutrition improves patient outcomes and can enhance recovery – reducing major complications and infections and significantly reducing the length of hospital stay. In a cost-effectiveness analysis of 204 such patients, it was shown that pre-operative immunonutrition significantly reduced complication costs, nutrition costs and total costs per patient<sup>5</sup>. Prof. Stanga highlighted the importance of screening patients and noted that no uniform conclusion about which nutritional screening instruments is the best to predict outcome can be made.

“It is important to screen colorectal cancer patients to assess and improve their nutritional status”, Prof. Stanga commented. “We should provide the best nutrition support pre-operatively in accordance with the evidence-based recommendations of ESPEN”.

### **PEG dependence in Head and Neck Cancer**

Professor Magnuson discussed the long-term dependence on percutaneous endoscopic gastrostomy (PEG)-tube feeding in patients following treatment for head and neck cancer. He noted that around 40% of patients experience nutritional deficits or have trouble with oral food intake at the time of presentation and most patients lose 10-12% of their body weight<sup>6</sup>.

“Immunonutrition has been shown to reduce the number of infections and complications associated with treatment for head and neck cancer,” Prof. Magnuson said.

In one study of head and neck cancer patients with post-operative infections, the increased length of hospital stay had associated medical costs of up to 17,000 Euros per patient<sup>7</sup>. Several studies have shown that treatment with immunonutrition or immuno-enhanced formula results in a significant decrease in post-operative infections<sup>8,9</sup>. The timing of treatment with immunonutrition is also important.

### **The economic burden of diarrhea in GI cancer**

Concluding the symposium, Professor Déchelotte noted in a study of all grades of diarrhea in patients with GI cancer receiving chemotherapy the monthly cost of diarrhea-induced complications was up to USD100-200<sup>10</sup>. In addition, while GI cancer itself may be associated with diarrhea, in many cases, cancer therapies can increase the incidence of diarrhea in patients<sup>11</sup>. GI cancer-related diarrhea is frequent and often severe, and can lead to changes in cancer treatment, dose reduction or cessation of treatment in the most severe examples.

Commenting on these findings, Prof. Déchelotte said: “Innovative nutritional strategies are needed to reduce the incidence and severity of the burden of diarrhea and the clinical evaluation should include a cost-efficiency analysis. New ideas such as preventative nutritional conditioning of the GI tract before cancer therapy could help to reduce diarrhea in these patients”.

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<sup>1</sup> Mazaki T, Ebisawa K. *Enteral versus Parenteral Nutrition after Gastrointestinal Surgery : A Systematic Review and Meta-Analysis of Randomized Controlled Trials in the English Literature. J Gastrointest Surg* 2008

<sup>2</sup> Braga Arch Surg 1999, Senkal Arch Surg 1999, Gianotti Gastro enterology 2002, Braga Surgery 2002, Braga Arch Surg 2002

<sup>3</sup> Sorensen J et al. *Clin Nutr* 2008;27:340 / Stanga Z et al. *Eur J Clin Nutr* 2007;62:687

<sup>4</sup> Schneider SM et al. *Br J Nutr* 2004;92:105 / Naber TH et al. *Am J Clin Nutr* 1997;66:1232

<sup>5</sup> Braga M et al. *JPEN* 2005

<sup>6</sup> Newman LA, Vieira F, Schwiezer V, et al. Eating and weight changes following chemoradiation therapy for advanced head and neck cancer. *Arch Otolaryngol Head Neck Surg* 1998;124:589–592.

<sup>7</sup> Penel et al. *International Journal of Oral and Maxillofacial Surgery* Feb 2008; 37(2):135-39

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<sup>9</sup> Casa-Rodera et al. *Nutr Hosp* 2008 Mar-Apr;23(2):105-10

<sup>10</sup> Chu et al 2009 *Cancer*

<sup>11</sup> Cherny, *J Pain Symptom Manage* 2008