# Integrated and Comprehensive Optimizing of Nutritional Care in Czech Republic

Creating a system for the identification and management of hospital malnutrition and finalization of the structure of education and certification in the field of clinical nutrition

TESINSKY Pavel, NOVAK Frantisek, KOHOUT Pavel on behalf of Czech Society for Clinical Nutrition and Intensive Metabolic Care (SKVIMP)



# **Description of the initiative:**

- 1. Development and validation of a system for identification of patients at risk of malnutrition, evaluation of impact of nutritional intervention on hospital malnutrition, and cost evaluation of malnutrition-related complications.
- 2. Implementation of national guidelines on clinical nutrition.
- 3. Upgrading of the system of education in clinical nutrition for physicians and dietitians.

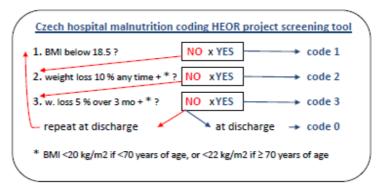
#### **Rationale:**

Hospitalized malnourished patients are complicated more often, stay longer, and therefore are subjects of higher healthcare costs than DRG matched patients without malnutrition. The early identification of those at nutritional risk is a necessary objective to deliver appropriate nutritional intervention, making nutritional care a cost-effective part of patient care. Better health care professional awareness will also help in clinical nutrition guidelines implementation and management of nutritional issues within current diagnoses-related group based hospital care reimbursement system. A strong need for integration of activities leading to limitation of malnutrition associated complications in the Czech Republic is evident.

## Scope of project, activities, implementation:

- 1. **Development and validation:** Using 2015 ESPEN consensus diagnostic criteria for malnutrition based simple coding tool to identify malnourished hospitalized patients within the database system of payments from health insurers in 10 teaching and district hospitals.
- 2. **Cost and outcome evaluation:** To compare hospital length of stay, readmission within 30 days and hospitalization costs in malnourished patients (codes 1,2,3), and DRG matched patients without malnutrition (code 0) according to the screening tool below.
- **3. Nutritional guidelines implementation:** To create new national guidelines on clinical nutrition on the diagnosis oriented principle based on current results of clinical trials, meta-analyses, and new ESPEN guidelines. Working groups have been established and drafts will be introduced in 2016. Completed guidelines will be published in 2017.
- 4. Raising healthcare professional awareness: To update the system of basic and advanced education as well as a network of certified hospitals for clinical practice. Thus, nutritional care will be provided by trained professionals. Currently, two ways of certification are accepted: the License in Nutrition as a diploma issued by the Czech Chamber of Physicians for those with proved skills in the field of clinical nutrition which entitles the holder to prescribe nutrition to patients eligible for reimbursement. A higher degree is the Board Certification in Clinical Nutrition and Intensive Metabolic Care which requires a one year training completed by an examination. The aim of the project is to enhance the competences of the certified physicians towards the healthcare authorities.

The Czech Health Economics and Outcomes Research (HEOR) Hospital Malnutrition project will take place at the department of internal medicine, surgery and oncology in participating hospitals. All eligible patients admitted in the study period will be included and screened using the tool on the right. A priori exclusion criteria: planned short 3-day (max.) hospitalization (simple diagnostic or therapeutic procedures).





#### **MNI GRANT 2016:**

## Name of the national society:

Czech Society for Clinical Nutrition and Intensive Metabolic Care (SKVIMP)

#### **Contacts information:**

Pavel Těšínský, MD, Assoc. Prof. (pavel.tesinsky@fnkv.cz; +420 603422663) František Novák, MD, Ph.D. (fnova@lf1.cuni.cz; +420 724315013)

#### Title of the project:

Integrated and Comprehensive Optimizing of Nutritional Care in the Czech Republic: a system for the identification and management of hospital malnutrition and finalization of the structure of education and certification in the field of clinical nutrition

## **Project description:**

The Health Economics and Outcomes Research (HEOR) Hospital Malnutrition Project is designed for the development and validation of a system for identification of patients at risk of malnutrition, evaluation of impact of nutritional intervention on hospital malnutrition, and cost evaluation of malnutrition-related complications within existing national health care reimbursement system.

An important part of the project is the preparation and implementation of national guidelines on clinical nutrition and also an upgrade of the system of education in clinical nutrition for physicians and dietitians.

#### Rationale and contribution to patient care:

Hospitalized malnourished patients are complicated more often, stay longer, and therefore are subjects of higher healthcare costs than diagnoses-related group (DRG) matched patients without malnutrition. The early identification of those at nutritional risk is a necessary objective to deliver appropriate nutritional intervention, making nutritional care a cost-effective part of patient care. Better health care professional awareness will also help in clinical nutrition guidelines implementation and management of nutritional issues within current DRG based hospital care reimbursement system. A strong need for integration of activities leading to limitation of malnutrition associated complications in the Czech Republic is evident.

# **Project activities and key points:**

- 1. **Development and validation:** Using the 2015 ESPEN consensus diagnostic criteria for malnutrition based simple coding tool to identify malnourished hospitalized patients within the database system of payments from health insurers in 10 teaching and district hospitals.
- **2. Cost and outcome evaluation:** To compare hospital length of stay, readmission within 30 days and hospitalization costs in malnourished patients and DRG matched patients without malnutrition. Implementation of this Czech HEOR Hospital Malnutrition Project results into the national DRG system of hospital health care reimbursement system.
- **3. Nutritional guidelines implementation:** To create new national guidelines on clinical nutrition on the diagnosis oriented principle based on current results

- of clinical trials, meta-analyses, and new ESPEN guidelines. Seven working groups have been established and first drafts will be introduced in 2016. Completed guidelines will be published in 2017.
- 4. Raising healthcare professional awareness: To update the system of basic and advanced education as well as the network of certified hospitals for clinical practice. Thus, nutritional care will be provided by trained professionals. Currently, two levels of certification are used. (1) the License in Nutrition as a diploma issued by the Czech Chamber of Physicians for those with proved skills in the field of clinical nutrition which entitles the holder to prescribe nutrition to patients eligible for reimbursement. (2) A higher medical specialty degree is the Board Certification in Clinical Nutrition and Intensive Metabolic Care which requires a one year training completed by an examination.

# Allocation of financial resources (10.2016-06.2018) (EUR)

The HEOR pilot project in 10 hospitals (12000), development and publication of 7 clinical nutrition national guidelines (incl. group meetings) (10500), the learning text for nutrition specialists training (3000), meeting and travel costs (3000), organizers and administrators office costs (incl. website updates) (3000).

#### **Innovation:**

The new 2015 ESPEN consensus diagnostic criteria for malnutrition based HEOR hospital malnutrition project that is being planned and will be performed within current DRG based system of reimbursement. Facilitation and improvement of existing national system of nutrition care and clinical nutrition speciality training together with disease-related malnutrition management certification of health care providers.

## **Measurability of the project:**

A publication of the HEOR project results in peer reviewed nutrition journal within 24 months. A modification of the current DRG based national system of health care reimbursement with respect to malnutrition documentation and nutrition care costs. The number of national clinical nutrition guidelines published.

A new edition of textbook "Current trends in clinical nutrition", the learning text for nutrition specialists training approved by the official Board of Certification.

#### **Conclusions and relevance on national/international level:**

The aim of the project is to create a national system of hospital malnutrition screening, documentation and management within the existing DRG based system of health care reimbursement. An important part of this aim is to enhance the competences of the certified clinical nutrition care professionals (mainly dietitians and physician nutrition specialists) towards the healthcare authorities. Thanks to HEOR methodology used in combination with new 2015 ESPEN consensus diagnostic criteria for malnutrition in DRG based hospital care reimbursement system the results of this project will be most likely relevant also to other geographies.

Prague, June 16,2016

Pavel Tesinsky Frantisek Novak