

OVERVIEW OF THE ORGANIZATION OF CLINICAL NUTRITION IN TARTU UNIVERSITY HOSPITAL

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ABSTRACT

The association between poor nutritional status and treatment outcomes as well as increased healthcare costs have been shown in different clinical settings. Rational health care organization including a nutrition therapy is a theme that is in the centre of attention for physicians, health promoters and social workers. The paper demonstrates the organisation of a nutrition therapy at the Tartu University Hospital where counselling of patients and the medical team have gained much attention recently. In connection with the formation of the food service at the Tartu University Hospital on 1 May 1999 new important issues of management and organisation beside specific dietology issues have gained importance in feeding patients. By today the activities of the Tartu University Hospital in the field of nutrition have been reorganised in connection with the introduction of the electronic case history in the years 2008–2009.

Keywords: *organisation of dietary nutrition; nomenclature of diets; nutrition counselling*

THE IMPLEMENTATION OF THE DIET'S SYSTEM

The hospital feeding treatment relied on many legal documents including norms for feeding patients and the prescribed costs of the daily food. All these documents gave norms to our activities and gave them a fixed framework with differentiated monetary and nutritional norms.

For several decades in Estonian hospitals the so-called Nomenclature of Pevzner Diets was used. Its author was professor M. I. Pevzner (1872–1952), a medical researcher, gastroenterologist from Moscow University who was also

the founder of clinical feeding treatment and the developer of diet treatment in Russia. The use of the system of Pevzner's diets was obligatory in all the hospitals in the Republic of Estonia (Pokrovski et al. 1981). Several diets, in spite of their existence in the Pevzner nomenclature, did not have a reason for such a detailed implementation. In numeration 1–15 of the classification of Pevzner's diets together with subgroups was not rational for practical use and gave no information. The feedback from the doctors of clinics showed that in the menus of the patients, having acute diseases of the digestive tract, there was too little choice of foods and nutrition which was not justified.

Since 1995 in the Maarjamõisa Hospital the implementation of the new integrated diet system has started to guarantee optimal and adequate diet treatment for the patients in the hospital. The New System and nomenclature of new modern treatment diets was used in Tartu University Clinics in Tartu since 1995–1997. This new nomenclature of diets has been developed in the hospital on the basis of theoretical and practical experience obtained over several years of co-operation with medical scientists from different fields of specialisation.

In connection with the formation of the food service at the Tartu University Hospital on 1 May 1999 new important issues of management and organisation beside specific dietology issues have gained importance in feeding patients. By today the activities of the Tartu University Hospital in the field of nutrition have been reorganised in connection with the introduction of the electronic case history in the years 2008–2009. The common system of diets for treatment has been implemented in all the hospitals and care centres in the whole republic (Regulation No 131. Estonian Ministry of Social Affairs. Tervisekaitseinspektoratu tootlustamisele tervishoiu- ja hoolekandetasutustes 2002).

Two main methods have been accepted in nutrition research: the food frequency questionnaire (FFQ) and the 3-day nutrition diary. We implemented a special FFQ compiled by the Centre of Physical Anthropology at the University of Tartu. The FFQ consists of socio-economic, physical activity and nutrition research (Kiisk et al. 2010).

The food energy and the content of nutrients of ready-made foods and menus are calculated on the basis of the nutrition program of the Institute of Research Development (NutriData Food Composition Database 2014). All the above mentioned changes in dietology have been checked by the treating doctors and the dietologists together when monitoring the patients.

THE HANDBOOK FOR DOCTORS AND NURSES IN COUNSELLING PATIENTS

Dietitian Liidia Kiisk with co-authors has worked out a systematized list of diets and compiled a collection of articles which takes into consideration contemporary principles of feeding treatment. The names and indications of the nomenclature of diets and the respective recommendations for the consumption of daily energy and basic nutrients are given in the Estonian handbook "Ravitoitlustamine". Treatment diets" (Kiisk et al. 2002). In the nomenclature of diets ordinary food and light groups of diet food are given. Each subgroup has a detailed characterization, the average content of basic nutrients and the indication for their use in the case of a certain disease. The handbook contains 227 recipes together with the complication of foods and nutrients. All the diet foods for treatment have been presented in the form of the examples for the daily sets which meet the needs of feeding treatment in the case of different stages of disease. It is recommended that the nomenclature of diet foods together with the examples should be used in other hospitals of the republic.

The patients nutritional counselling must consider a systematized list of diets. This created system allows achieving individual patient's counselling which considers the patient's disease, the type of body build and the peculiarities of metabolism, the made clinical analyses. The codified system of ordinary foods and diets has been installed into the database (e-HL, electronic Health in Tartu University Hospital) which takes into consideration the specific features of treatment and the nutritional needs of the hospital and outpatient departments.

THE CATERING SERVICE

This enables the catering service of the Tartu University Hospital to provide for the special needs of 17 clinics with about 1,000 patients every day. The share of the diet food is about 25–28%. The electronic database contains the titles for diets according to each meal-time which have been compiled in the hospital. Personal menus are entered in the case history by the dietologist according to the special needs of the patient and the indications of the diet treatment. For all the foods there are recipes and the technology for preparing them which should guarantee food safety.

The author has participated in working out the part of the Regulation of the Ministry of Social Affairs dealing with feeding treatment (Regulation No 131 Estonian Ministry of Social Affairs, 14 November 2002) which used the new system of diets worked out by the author. By today the hospitals and care

centres of the Republic of Estonia use the internationally recognized titles of diets together with clinical indications energy and basic nutrients (Kiisk 2002, Kiisk et al. 2008).

The normative values of the basic nutrients are in accordance with Estonian nutritional recommendations, the nutrition guidelines of the WHO Regional Office for Europe and with the Regulation number 131 Health Protection Requirements for Nutrition in Health Care and Social Welfare Institutions, issued No 14 November 2002 by the Estonian Minister of Social Affairs.

Supplement: The nomenclature of diets includes ordinary food and eight groups of diet food with subgroups (Table 1).

Table 1. Nomenclature of diets kitchen in Tartu University Hospital

NOMENCLATURE OF DIETS KITCHEN*		
I.	Ordinary Food	TAV
II.	1. Light Food or Basic Diets	D
	2. Non-lacking Diets	PV
	3. Gluten free Diets	G
	4. Purine lacking Diets	PUR
	5. High fibre Diets	KIU
	6. Protein rich Diets	VR
	7. Protein lacking Diets	VV
	8. Unflavoured Diets	MAG
III.	1. Diets for Diabetics (300 g carbohydrates)	300
	2. Diets for Diabetics (250 g carbohydrates)	250
	3. Diets for Diabetics (200 g carbohydrates)	200
	4. Diets for Diabetics (150 g carbohydrates)	150
IV.	1. Diets free of basic food allergens	AAT
	2. Lactose free Diets	LV
	3. Residue-lacking Diets	JV
	4. Diets for acute pancreatitis	P1
	5. Diets for acute pancreatitis	P2
	6. Diets for acute pancreatitis	P3
	7. Postoperative Diets	OP
V.	1. Liquid Diets	VED
	2. Liquid Diets for Diabetics	SVE
	3. Gluten free liquid Diets	GVE
VI.	1. Soft Diets	PEH
	2. Soft Diets for Diabetics	SVE
VII.	1. Sandardised tube food	R1...R5
	2. Special tube food	R6...R8
VIII.	1. Baby Formula	B

* e-HL, codified electronic-Health system in Tartu University Hospital

CONCLUSIONS

1. The New System and nomenclature of new modern treatment diets was used in Tartu University Clinics in Tartu since 1995–1997. By today the activities of the Tartu University Hospital in the field of nutrition have been reorganised in connection with the introduction of the electronic case history in the years 2008–2009. It is recommended that the nomenclature of diet foods together with the examples should be used in other hospitals of the republic.
2. Intensive nutritional individual counselling was implemented for studied patients considering of body composition parameters, the intake of nutrients as well as laboratory data by a dietitian. Interviews have revealed that 98% of patients were satisfied with the appearance, size and taste of their food portions. The patients were also satisfied with diet foods. Dieticians and other specialist doctors have organised refresher courses for the kitchen staff.
3. The operation of the organisation is coordinated by a service manager and a product manager. This enables the catering service of the Tartu University Clinic to provide for the special needs of 17 clinics with about 1,000 patients every day. The share of diet food is about 25–28%.

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