

**Lek. Alicja Jodczyk-Bargańska**

**„Evaluation of the Alignment of Hospital Nutrition with Dietary Guidelines for Cardiology and Diabetology Patients in Selected Polish Hospitals, Including Health, Legal, and Organizational Perspectives”**

**Streszczenie w języku angielskim**

Proper hospital nutrition and targeted dietary intervention are crucial in treating patients with cardiological problems and diabetes, improving health outcomes and reducing disease complications. Nutritional education begins in the hospital and is essential for establishing beneficial dietary habits and eliminating harmful ones. However, the issue of hospital meal quality in Poland remains underestimated. A lack of current data complicates the assessment of the problem. A detailed analysis from the 2018 Supreme Audit Office report highlighted significant deficiencies in hospital nutrition in Poland. In most of the examined hospitals meals were inadequate to patients' health conditions, prepared from low-quality ingredients, and characterized by incorrect energy and nutritional values. There were also no clear legal regulations regarding the profession of dietitians or the principles of their employment in medical institutions.

The dissertation aims to evaluate the compliance of hospital nutrition with dietary recommendations for cardiology and diabetology patients in selected Polish hospitals, considering health, legal, and organizational aspects. The research consists of three complementary manuscripts: a review analyzing the state of hospital nutrition in Poland, and two original manuscripts based on data from one cross-sectional study.

The review (Manuscript 1) presents the legal basis for hospital nutrition in Poland, current knowledge on hospital meal quality, the legal status of dietitians in hospital wards, and sources of dietary guidelines. It identifies significant gaps in regulations, the lack of an integrated quality assessment system, and the absence of legal guidelines on dietitians' role and employment principles in hospitals.

The cross-sectional study, conducted in 2022 in seven Polish hospitals of varying referral levels, involved: (1) creating a survey for hospital staff regarding meal organization, quality, compliance with dietary guidelines and request to provide hospital meal menus for ten

consecutive days; (2) the development of a standard menu for diabetic and cardiology patients; (3) an analysis of hospital menus using the Dieta 6.0 computer program; (4) a comparison of findings with the “Good Meal in Hospital” recommendations created by Polish Ministry of Health and the 2021 ESC guidelines; (5) statistical analysis using one-way ANOVA and Dunnett's test.

The study found that nutritional education was conducted in six out of seven hospitals, but dietitians were employed in only four. Four hospitals prepared meals in their kitchen, while three outsourced catering services. The manuscript which aimed to evaluate the compliance of meals dedicated to diabetic patients with “Good Meal in Hospital” recommendations (Manuscript 2), revealed numerous deficiencies, such as a lack of dietary variety, excessive intake of salt, saturated fatty acids, mono- and disaccharides, and insufficient supply in legumes and fish. Regarding diabetic diets, five hospitals met eight out of thirteen criteria, while two met seven. The manuscript, which analyzed compliance of meals dedicated to cardiology patients with 2021 ESC guidelines (Manuscript 3) revealed that animal-based products dominated all menus. Only a few menus meet minimum quality standards. The most significant discrepancies involved an excessive supply of saturated fat and salt, sweetened beverages and a deficiency of fibre, fruits and unsalted nuts. Regarding cardiology diets, one hospital met six out of eleven criteria, three met five, and the remaining three met four.

The findings indicate severe deficiencies in hospital nutrition in Poland. Poor meal quality and inadequate adaptation to the needs of chronically ill patients may lead to deteriorating health and increased complication risks. Given the limited availability of dietitians and the workload of medical staff, hospital meals often serve an essential educational function, influencing patients' long-term eating habits. The study highlights the urgent need for systemic reforms, including mandatory dietitian employment in hospitals, the implementation of quality standards for meals, and regular compliance audits with dietary recommendations. Educational efforts targeting both medical personnel and patients are also crucial.