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HYGIENIC ASSESSMENT OF FOOD PRODUCT QUALITY

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ANNOTATION: In the medical and healthcare system, patient treatment encompasses not only medication and surgical procedures but also comprehensive care. A fundamental and strategic pillar of this care system is the proper organization of patient nutrition. Rational and dietary nutrition is referred to in medical practice as "dietotherapy." Dietotherapy directly influences the course of pathological processes, boosts the body's immune defenses, restores metabolism, and enhances the efficacy of medications.

Keywords: food products, hygienic assessment, food safety, sanitary control, microbiological indicators, organoleptic assessment, toxic substances, storage conditions.

INTRODUCTION

Organizing patient nutrition in accordance with hygiene standards is one of the most critical tasks in a hospital setting. Poorly organized nutritional systems or hygiene deficiencies in medical facilities can lead to the spread of infections, a deterioration in patients' general condition, and prolonged hospital stays. Therefore, this article provides a comprehensive analysis of the mechanisms for organizing patient nutrition, the system of therapeutic diets, and the sanitary-hygienic significance of this process.

In accordance with regulations established by the Ministry of Health and the Sanitary-Epidemiological Welfare Service, dietary services in each hospital are managed by designated staff and special committees. Key personnel responsible for managing the hospital's nutrition system include the deputy chief physician, the dietitian, and the dietary nurse.

The dietitian compiles the hospital menu and oversees the dietary regimens prescribed to patients. Meanwhile, the dietary nurse checks the quality of food products, monitors sanitary conditions in the kitchen, and supervises the food preparation process. A special "portion requisition" (menu) is generated daily based on the number of patients in hospital wards and their respective dietary requirements; this document serves as the basis for allocating food products from the storage facility.

The food service unit must be located in a separate or isolated block away from the hospital's main building. Its design must be based on the "technological flow" principle. This principle ensures that raw materials (such as raw meat and vegetables) and finished meals do not come into contact with one another. Otherwise, pathogenic microorganisms from raw products could transfer to the finished meals, potentially causing mass food poisoning.

MATERIALS AND METHODS: For many years, the system of 15 dietary regimens developed by M.I. Pevzner has been used in medical practice. Each diet is tailored to specific diseases of organs or body systems and differs in terms of chemical composition, energy value, and preparation method:

- Diet No. 1: Prescribed for gastric and duodenal ulcers. The goal is to protect the gastric mucosa from mechanical, chemical, and thermal irritation. Meals are primarily steamed or served in puréed form.

- Diet No. 5: Used for diseases of the liver, gallbladder, and bile ducts (e.g., hepatitis, cholecystitis). This diet restricts fats, maintains normal levels of protein and carbohydrates, and includes foods that promote bile flow.

- Diet No. 7: Recommended for kidney diseases (e.g., nephritis, glomerulonephritis). Its main feature is reducing the load on the kidneys by sharply limiting salt and fluid intake and controlling protein consumption. - Diet No. 9: Used for diabetes; easily digestible carbohydrates (sugar, sweets) are completely excluded, while fiber-rich foods are included.

- Diet No. 10: Prescribed for cardiovascular diseases (hypertension, atherosclerosis) with restrictions on salt and fluid intake to ease the workload on the heart and reduce edema.

- Diet No. 15: A general diet intended for patients recovering from illness or suffering from conditions that do not require a specialized diet. It ensures balanced, nutritionally complete meals.

The food service unit comprises the following areas: a product receiving area, storage facilities (including cold storage), raw material processing areas (meat/fish and vegetable preparation sections), a cooking section (hot kitchen), a meal distribution area, and a dishwashing area. Knives, cutting boards, and utensils used in each section must bear specific markings (e.g., "RM" for raw meat, "RPV" for ready-prepared vegetables, etc.). This rule is a key factor in preventing cross-contamination.

RESULTS: Prepared meals are delivered to hospital wards using special thermoses, sealed and labeled containers, or specialized heated carts. Dedicated "pantry rooms" (service areas) are established within the wards for receiving and distributing the food. These pantry rooms must be equipped with all necessary sanitary facilities, hot and cold water systems, dishwashers, and disinfectants.

In accordance with hygiene regulations, prepared hot meals must be distributed to patients within a maximum of two hours of cooking. At the time of distribution, the temperature of first-course dishes (soups/broths) must be at least 75°C, and that of second-course dishes (main courses) at least 65°C. Cold dishes and salads must be stored and served at temperatures between 7°C and 14°C. It is strictly prohibited to keep leftover prepared meals for the following day or to reheat and serve them to patients.

Kitchen staff constitute one of the groups in the hospital requiring the highest level of attention, as an infected employee can jeopardize the health of hundreds of patients. All kitchen personnel are required to undergo a comprehensive medical examination prior to employment and regularly thereafter (on a quarterly basis or at designated intervals). These examinations include chest X-rays (fluorography), screening for intestinal infections, testing for helminth eggs, and checks for purulent skin conditions.

Every day before starting a shift, a nurse inspects the staff's hands and skin (recording the findings in a health inspection log). If an employee is found to have tonsillitis, upper respiratory tract inflammation, purulent wounds on their hands, or gastrointestinal disorders, they are immediately removed from duty. Staff must wear designated work attire (gowns, caps, and aprons), keep their hair fully covered, maintain short fingernails, and strictly adhere to personal hygiene standards. Removing work clothing before using the restroom and washing hands with an antiseptic upon returning is a simple yet crucial rule.

Food items brought by the relatives of hospitalized patients must be subject to special oversight. The nurse on duty in the ward is required to inspect the items brought in and verify their compliance with the patient's prescribed diet. For instance, salty and smoked products are prohibited for a patient with kidney disease (Diet No. 7), while sweets are forbidden for a patient with diabetes (Diet No. 9).

DISCUSSION: Patients' personal items are stored in bedside lockers or in a designated refrigerator within the ward. Each package in the refrigerator must be labeled with the patient's full name, room number, and the date the item was placed there. Duty staff are authorized to dispose of perishable items if their shelf life has expired or if storage guidelines have been violated. The refrigerators are inspected daily and cleaned in accordance with sanitary requirements.

Patients in critical condition, those who are unconscious, or those with impaired swallowing function (such as in intensive care or neurosurgery units) cannot eat normally. In such cases, enteral (via a feeding tube) or parenteral (intravenous) nutrition is administered. Specially prepared, balanced formulas are used for enteral nutrition; these formulas must meet extremely high standards of sterility and hygienic safety.

Liquid foods and nutritional formulas administered via a tube are warmed to body temperature (36–37°C) before use. The delivery systems, syringes, and tubes employed must be disposable and connected in strict compliance with aseptic protocols to prevent infection. In parenteral nutrition, solutions containing proteins, carbohydrates, and vitamins are infused directly into the bloodstream; this procedure is performed solely under medical supervision and in sterile conditions.

One of the most robust control mechanisms for preventing mass food poisoning in hospitals is the "brakorazh" (quality assessment) system. Before any batch of prepared food is distributed to patients, a special commission—comprising a doctor, a dietitian, and the head chef—takes a sample to evaluate the food's taste, appearance, aroma, and level of doneness. The results are recorded in the "Prepared Food Quality Assessment Log."

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