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APOLOGIES

The publisher of Acta Balneologica journal and authors of the article «The Impact of WATSU as physiotherapy method on fatigue for people diagnosed with Multiple sclerosis» DOI: 10.36740/ABAL202301103, Acta Balneol., VOL. LXV, Nr. 1(173);22:15-24 – Julija Andrejeva, Elinga Mockute, Grazina Sniepiene, Elvira Malyško, Natalja Istomina, and Vaiva Hendrixson apologize: Agnes M. Schitter, Johannes Fleckenstein, Peter Frei, Jan Taeymans, Nico Kurpiers and Lorenz Radlinger for copyright infringement. Article published in our journal lacked information about the use of two quotes from the article by the aforementioned authors entitled the „Applications, indications, and effects of passive hydrotherapy WATSU (WaterShiatsu) – A systematic review and meta-analysis”, PLoS One. 2020 Mar 13;15(3):e0229705, doi.org/10.1371/journal.pone.0229705. The fragment of article concerning the definition and history of WATSU and in parts of discussion there was reference to the fragments being quoted from „Applications, indications...”. There was however a reference to primary sources (the same, as referenced by the authors of the article).

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INTRODUCTION OF THE PACKAGE OF MEDICAL SERVICES «COMPREHENSIVE REHABILITATION ASSISTANCE TO ADULTS AND CHILDREN IN STATIONARY CONDITIONS» IN HEALTH CARE INSTITUTIONS OF UKRAINE: MATERIAL AND TECHNICAL REQUIREMENTS

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ABSTRACT

The aim: To investigate the conditions for the introduction of the package of medical services “Comprehensive rehabilitation assistance to adults and children in stationary conditions” and to directly study and analyze the requirements for equipment.

Materials and Methods: The specification and conditions for the purchase of medical services under the program of medical guarantees under the package “Comprehensive rehabilitation assistance to adults and children in stationary conditions” were used as the materials of the study. The following methods were applied in the course of the study: bibliosemantic, of content analysis, of structural and logical analysis.

Conclusions: It was established that in order to introduce the package of medical services “Comprehensive rehabilitation assistance to adults and children in stationary conditions”, health care institutions of Ukraine must be provided with equipment that is functionally divided into four groups: equipment to ensure effective patient care, medical equipment, rehabilitation equipment and household equipment.

The results of the study indicate the formation of a network of high-quality comprehensive rehabilitation institutions in Ukraine.

KEY WORDS: rehabilitation assistance, stationary conditions, introduction, equipment

INTRODUCTION

The system of rehabilitation assistance to the population is actively developing in Ukraine. The development of the system is determined at the legislative level [1]. Its introduction is accompanied by the development of the regulatory framework [2, 3], the training of specialists [4,5] and the provision of modern equipment [6].

The need for rehabilitation assistance to the population of Ukraine is growing due to the serious medical consequences of Ukraine’s war against Russian aggression [7, 8].

In accordance with paragraph 139-10 of the Procedure for implementing the program of state guarantees of medical care for the population in 2022, approved by the Resolution of the Cabinet of Ministers of Ukraine dated 29.12.2021 №1440, the NHSU concludes contracts for a new package of medical services “Comprehensive rehabilitation assistance to adults and children in stationary conditions” [9].

Thus, a network of high-quality comprehensive rehabilitation facilities is being formed in Ukraine. According to the Ministry of Health of Ukraine, at the end of 2022, 38 healthcare institutions meet the requirements for this package of medical services.

AIM

To investigate the conditions for the introduction of the package of medical services “Comprehensive rehabilitation assistance to adults and children in stationary conditions” and to directly study and analyze the requirements for equipment.

MATERIALS AND METHODS

The specification and conditions for the purchase of medical services under the program of medical guarantees under the package “Comprehensive rehabilitation assistance to adults and children in stationary conditions” were used

as the materials of the study. The following methods were applied in the course of the study: bibliosemantic, of content analysis, of structural and logical analysis.

For the application of these materials and methods during the study, permission was obtained from the ethical commission of Uzhhorod National University. Protocol dated 08.02. 2023 № 6/2.

REVIEW

In accordance with the established goal, the requirements under the program of medical guarantees "Comprehensive rehabilitation assistance to adults and children in stationary conditions" for material and technical provision of health care institutions were studied and analyzed.

At the beginning of the study, the requirements as for the organization of the provision of relevant services were studied. These requirements are as follows:

1. The presence of an inpatient department for rehabilitation in the post-acute rehabilitation period.
2. Ensuring the possibility of conducting laboratory tests in the institution or on the terms of rent, contract and other conditions of use.
3. Providing the possibility of conducting instrumental examination in the institution or on the terms of lease, contract and other conditions of use.
4. The presence of an assistive technology room.
5. Availability of room for physical therapy – a hall (halls) of physical therapy and an office (offices) for the provision of individual rehabilitation assistance in physical therapy.
6. Availability of room for ergotherapy – ergotherapy hall and office (offices) for individual rehabilitation assistance in ergotherapy.
7. Availability of an office for the provision of individual rehabilitation assistance in speech therapy.
8. The presence of an office for the provision of individual psychological assistance.
9. Availability of room for the selection and adjustment of rehabilitation aids.
10. The presence of a manipulation room, including for invasive medical interventions.
11. The presence of a dressing room in the institution at the place of rehabilitation assistance.

The next step of the study showed that at the place of provision of medical services depending on the direction of rehabilitation in a health care institution, it is mandatory to have the internal networks of the department connected to an autonomous backup source of power supply in accordance with regulatory technical documents and to have the functioning centralized oxygen supply system with a source of medical oxygen (central oxygen point and/or oxygen-gasification station, and/or oxygen concentrator/s), or the operating oxygen concentrator capable of maintaining an oxygen flow rate of at least 10 l/min.

Next, we divided the equipment the availability of which is necessary in a health care institution for concluding an agreement with the National Health Service of Ukraine for the provision of inpatient rehabilitation assistance to the population in stationary conditions, into four functional groups: equipment to ensure effective patient care, medical equipment, rehabilitation equipment and household equipment.

For each specified group, we studied the issue of the list and purpose and the required amount of equipment. According to the specification for the package of medical services, all calculations were made for a department with a capacity of 30 rehabilitation beds. At the first stage, a list of equipment necessary to ensure effective patient care was formed (Table 1).

Table 1. Necessary equipment to ensure effective patient care

Name and purpose of the equipment	Required quantity
Anti-decubitus mattresses	At least 20 (in case of rehabilitation assistance to children – at least 5)
Functional bed	At least 20 (in case of rehabilitation assistance to children – at least 5)
Device for raising the patient in bed	Requirements are not defined
Anti-decubitus pillows	At least 20 (in case of rehabilitation assistance to children – at least 5)
Toilet chair	At least 6
Shower chair	At least 3

Table 2. Necessary medical equipment

Name of the equipment	Required quantity
Multichannel electrocardiograph	Requirements are not defined
Portable defibrillator with synchronization function	Requirements are not defined
Aspirator	Requirements are not defined
System for monitoring the physiological parameters of one patient (non-invasive BP, HR, ECG, SpO ₂ , t)	2 systems
Standardized tests and non-standardized therapeutic evaluation kits	Requirements are not defined
Tonometer and/or pediatric tonometer with cuffs for children of different ages	At least 6
Pulse oximeter	At least 10
Glucometer	Requirements are not defined
Non-contact thermometer	Requirements are not defined

The analysis of the data provided in Table 1 indicates that the list of necessary equipment includes the equipment necessary to ensure effective care for patients with disabilities.

Taking into account the presence in the rehabilitation departments of patients who need monitoring the state of health and the provision of emergency medical care, the list of necessary equipment includes medical equipment (Table 2).

Thus, the list of needed medical equipment includes equipment that is necessary to diagnose possible urgent conditions that may occur in patients during rehabilitation measures and to ensure the provision of emergency medical care before the arrival of the relevant specialists. It should be noted that most of the equipment specified in Table 2

does not require special maintenance and is simple and easy to use.

Basing on the tasks assigned to the inpatient departments for the comprehensive rehabilitation of patients, we have allocated the equipment necessary for the comprehensive rehabilitation of patients into a separate group (Table 3).

Special equipment for rehabilitation purposes, which is included in the list as mandatory equipment, can also be divided into several groups: rehabilitation systems, rehabilitation simulators, rehabilitation equipment, aids. The analysis indicates that all the basic means that are needed for effective comprehensive rehabilitation of patients are included as necessary.

Table 3. Special equipment for rehabilitation purposes

Name and purpose of the equipment
Wide couch with height adjustment – at least 4
Assistive technologies to ensure mobility of various types and sizes – wheelchairs, sticks, crutches, walkers, means of alternative communication (communication boards, books, devices);
Orthoses, bandages, slings;
Tools for positioning of different shapes and sizes;
Balls (fit balls) of different sizes and shapes;
Different types of balancers;
Step platforms;
Exercise bike;
Equipment for functional electrical stimulation;
Swedish wall;
Mechanical and/or automatic rotor for training the upper and lower extremities;
Mechanical and/or automatic rotor for training upper and lower extremities for bedridden patients;
Mechanical and/or automatic rotor for training the ankle and knee joints;
Mechanical and/or automatic rotor for training the wrist and elbow joints;
Mechanical and/or automatic apparatus for training the finger joints;
Rehabilitation treadmills;
Multifunctional rehabilitation complex;
Active rehabilitation module;
A set of rubber harnesses, dumbbells, weights, therapeutic rubber bands, therapeutic plasticine;
Rehabilitation belts to insure patients while walking – at least 8.
Equipment for the restoration of sensory and motor functions of the upper limb (including goniometers, dynamometers, pinch meters, sets of weights on hands of various weights, sets of rings, cones, clothespins, therapeutic plasticine, expanders, elastic tapes, panels with small details, hooks, locks and keys, game materials, etc.);
Verticalizer of different types and sizes;
Adaptive means and materials to develop swallowing, feeding and cooking skills;
Rehabilitation handrails along the hall and/or rehabilitation bars in the physical therapy room;
Rehabilitation bars with obstacles;
Dynamic simulators ladder-bars;
Hemispheric balancing on the platform;
Pillow balancer;
Simulator to increase the strength and volume of movements in the joints of the limbs.

Table 4. Necessary household equipment

Name and purpose of the equipment
Materials and facilities for the restoration and development of gaming, social and self-service skills;
Equipment, materials and means to restore participation in the activities of daily life, including the restoration of cognitive functions (including auxiliary equipment);
Equipment, toys and/or materials for sensory stimulation and motor skills development;
Wall mirror and/or mobile mirror on wheels;
Furniture and materials in the ergotherapy room or other accessible premises that simulate the arrangement of a dwelling to resume participation in the activities of everyday life (cabinets, table, chair, computer, telephone, ironing board, iron, large wall clock, calendar, books, newspapers, magazines, etc.);
Auxiliary equipment for pulling and grabbing, dressing/undressing and adaptive clothing;
Kitchen and kitchen materials to resume participation in the instrumental activity of everyday life (sink, stove, microwave, refrigerator, set of ergotherapeutic dishes, electric kettle).

At the final stage of the study, the list of necessary household equipment was studied and analyzed (Table 4).

The list of household equipment, which is designed to restore the daily skills of an independent quality life, is wide and includes the necessary means for effective rehabilitation treatment.

DISCUSSION

The requirements of a material and technical nature for the introduction of a package of guaranteed medical services "Comprehensive rehabilitation assistance to adults and children in stationary conditions" in health care institutions of Ukraine have been studied. According to the approved requirements, health care institutions should be provided with the following groups of equipment: equipment to ensure effective patient care, medical equipment, rehabilitation equipment and household equipment.

This study is original and conducted for the first time in Ukraine.

It should be noted that the problem of providing health care institutions with medical devices is extremely urgent. Researchers point out that the level of provision of health care institutions affects the quality and effectiveness of the treatment and diagnostic process as a whole [10, 11].

Taking into account the fact that recently the system of comprehensive rehabilitation in Ukraine has begun to actively develop and its development is defined at the legislative level, the problem of providing health care institutions in which rehabilitation assistance is provided with medical devices is becoming relevant for this sector of medical care to the population.

In the process of reforming the health care sector, the

issues of providing health care institutions of specialized and highly specialized medical care with medical equipment were raised at different levels of state and industry management with a positive solution to the problem [12]. The issue of providing medical products to rehabilitation care institutions was raised for the first time in Ukraine at the scientific-and-practical conference with international participation "Medical rehabilitation in Ukraine: current state and directions of development, problems and prospects", which was held in September 2022 [13].

Comparison of the required list of equipment in the package of medical guarantees with the National Classifier of Medical Devices, which was approved in 2019 by the Ministry of Economic Development of Ukraine [14], showed a certain inconsistency between them, which in the future will complicate the process of purchasing medical equipment by health care institutions to fulfill the terms of contracting between health care institutions and the National Health Service of Ukraine for comprehensive rehabilitation of patients.

In the future, it is planned to conduct comprehensive research to study the capabilities of the health care system of Ukraine to expand the list and volume of rehabilitation assistance to the population, as well as to ensure its availability.

CONCLUSIONS

The introduction of a guaranteed package of medical services "Comprehensive rehabilitation assistance to adults and children in stationary conditions" ensures the formation of a network of high-quality comprehensive rehabilitation institutions in the country.

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*Contribution:

A – Research concept and design, B – Collection and/or assembly of data, C – Data analysis and interpretation, D – Writing the article, E – Critical review of the article, F – Final approval of article