

Functional Disorders in the Elderly and how to Identify them

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Abstract

This article describes the relevance of the development of gerontology and geriatrics in modern society; various functional disorders that are observed in the elderly are considered. Also, my article indicates the reasons for the difficulties in the timely diagnosis of elderly people by primary care physicians and an innovative method for solving this problem. The development of the World Health Organization (WHO), which we propose to introduce into the practice of geriatricians, general practitioners, general practitioners (family doctors), will help to quickly and correctly diagnose, prescribe the required additional examinations and prescribe treatment.

Keywords: Functional Disorders; Elderly; World Health Organization (WHO)

Introduction

Currently, the problem of the development of gerontology and geriatrics is becoming very urgent. Humanity wants to maintain working capacity, vitality, well-being and appearance for as long as possible. This can be achieved if we identify in the early stages various functional disorders in the elderly, give recommendations for prevention and treatment, and normalize the way of life.

Gerontology, the science of life extension, has become an urgent scientific problem today. Prevention of premature aging of a person is the main task of gerontology as an important social and biological problem in the safety of human life. Gerontology studies the influence of living conditions on the aging process and the aging person and develops measures aimed at eliminating the negative impact of environmental factors in order to prolong an active and full life of a person. Currently, this direction is actively developing in our country; including, our Voronezh region participates in the development program for such areas as gerontology and geriatrics. For primary care physicians, this area is of particular interest, as to a greater extent have to deal with elderly patients.

Currently, about 15% of the world's population are elderly people, the number of which is more than 400 million people. In Russia, according to the latest census, there are over 29 million people over the working age. It is expected that in the near future the number of people in older age groups will increase even more, with an overall decline in the country's population [6]. The number of residents over working age in the Voronezh region, compared to 2006, has grown, and as of 2017 is over 665 thousand (28.5%).

“Previously, we were in a situation where the elderly are a minority, now we are gradually moving into a situation where the elderly are the majority,” said Olga Tkacheva (Russia’s chief freelance geriatrician). In this regard, according to her, “serious issues arise in increasing the period of active longevity and support for older people” [7].

People in older age groups have a large number of chronic diseases - multimorbidity. The older the patient, the more diseases he has. This is due both to age-related involutive changes, and irrational therapy in this category of patients. First, due to polymorbidity, a lot of drugs are prescribed, which are not always combined with each other; secondly, due to cognitive impairment, older people cannot take them correctly, and thirdly, pricing also affects. At the same time, there are clinical and clinical-organizational problems in the implementation of the procedures for the provision of geriatric care.

Previously known methods of examining the elderly are very laborious. For example, a comprehensive geriatric assessment based on questionnaires and scales is an important, but time-consuming and lengthy procedure [5]. At the same time, there is a low level of knowledge of doctors of various specialties in the field of modern geriatric views, in fact, there is no geriatric approach to the patient in the health care system [1]. Doctors are in a vacuum due to the lack of a well-built system of end-to-end gerontological education. Poorly implemented electronic technology for monitoring the health status of older people [2].

Research Results

The healthcare system in Russia and the world is radically changing, this is caused by changes in demography, an increase in the number of chronically ill people, growing financial pressure due to the rapid growth of costs, staff shortages. The changing paradigm associated with the transition to patient-centered healthcare significantly changes the digital strategy in the industry and the services that are implemented in it. Health regulators in every country now play a critical role in developing the right systems, strategies and processes to improve the quality of treatment while reducing the burden on the industry.

Currently, most Western European countries have already developed their eHealth strategy, implementation goals and a plan for the future scaling and complementing healthcare with new services. Countries such as the United Kingdom, Germany, the Netherlands, Sweden, Denmark, Norway and Finland, which have the most developed health infrastructures, have already begun implementing next generation systems. Key priorities for future investments in eHealth include:

- Interoperable electronic medical record systems,
- Cloud computing,
- Migration to web applications,
- Smart remote monitoring solutions,
- Electronic prescription systems,
- Document management,
- Clinical note systems,
- Integrated tracking systems for vital health parameters,
- Mobile medical applications,
- Consolidation of data centers,
- Information recovery systems that ensure the continuity of business processes.

In society as a whole and in the health care system in particular, the situation is ripe for the search and implementation of new effective tools for end-to-end education in the field of gerontology and geriatrics, taking into account new clinical and biological data on the processes of human aging in relation to the social component. Even in antiquity, the problem of aging was relevant. An example of this is a

quote from Cicero: “When I think of old age, I see four reasons why we habitually consider it an unhappy period of our lives: it removes us from active life, weakens our physical strength, deprives us of sensual pleasures and brings death closer”. Experts in the field of gerontology and geriatrics believe that it is the development of this direction that will lead to the maximum long-term maintenance of an active life and refute the fact that old age is the worst period of our existence.

Many researchers of the organization of gerontological care note that it is important to develop tools to identify the syndrome of senile asthenia and other geriatric syndromes, to teach the rules for using questionnaires and scales in geriatrics, and to conduct a comprehensive geriatric assessment [2]. Experts from the World Health Organization note that a system of continuous medical education in the field of geriatrics is needed, which would integrate the modern experience of telemedicine technologies, eLearning and ensure the formation of a geriatric approach in health care [3].

It is advisable to add that our developments on the introduction of digital technologies, in particular, the mobile application of the World Health Organization, will help doctors in their work with the elderly, implement a less energy-intensive way of early detection of various functional disorders, will enable early rehabilitation of elderly patients and, accordingly, will lead to improve the quality of life and active longevity.

An innovative app to help primary care physicians and geriatricians identify early functional impairments (cognitive impairment, malnutrition, hearing impairment, vision impairment, physical impairment and depression often present in the elderly and so rarely detected during routine physical examinations) - ICOPE Handbook App of the World Health Organization. This is a digital application that supports the implementation of the integrated elderly care approach (ICOPE). The interactive app guides health and social care workers step-by-step through screening older people at risk of community care dependency, conducting a person-centered assessment of the health and social care needs of older people, and developing personalized care plan. The app can also be used by governments and organizations to train healthcare and social workers to deliver personalized care.

ICOPE is an evidence-based approach developed by WHO that helps health systems support healthy aging by developing and implementing a people-centered and coordinated model of care. ICOPE focuses on early intervention for priority health conditions associated with decreased physical and mental performance in older adults, which include mobility limitations, malnutrition, visual impairment and hearing loss, cognitive decline, and depressive symptoms.

Studies have shown that a digital application significantly reduces the time of patient examination; show that even in the current unfavorable epidemiological situation (when the self-isolation regime is introduced due to the spread of a new coronavirus infection), the district or family doctor can screen using an application at home.

Discussion. After the research, let's summarize - the digital method is less energy-consuming and time-consuming, but at the same time it allows to identify various functional disorders (cognitive impairment, impaired motor activity, hearing impairment, vision, malnutrition, decreased muscle strength, possible depression, etc.) in elderly people at an early stage.

It should be added that a disease such as depression in the elderly is very rare. Patients do not talk about a decrease in their mood and about the various thoughts that visit them, and doctors do not focus on this. In this mobile application, the questions are selected in such a way that during the screening one can suspect depression or a tendency to it and quickly take appropriate action.

Conclusion

It should be borne in mind that personality defects and physical disabilities in most cases are a manifestation of illness, not old age, and appropriate care and treatment can improve the condition of patients, restore their health.

Geriatric care is more complex and requires more attention and time on the part of medical personnel than conventional medical care. Many psychological and social factors must be taken into account here. The term “patient care” includes not only physical care, but also the restoration of impaired mental and physical functions, the maintenance or development of the patient’s social ties with the family and society in which he is located.

The basic principles of care are respect for the patient’s personality, acceptance of him as he is, with all his physical and mental disabilities, irritability, talkativeness, in many cases dementia, etc.

Thus, screening of functional ability in patients of older age groups is an urgent problem for primary health care. Comprehensive geriatric assessment and digital technologies, for example, the mobile application WHO ICOPE Handbook App (special testing of patients with subsequent interpretation of the results), will help us in its implementation. I want to offer primary care doctors to use this mobile application in their work. With the help of such developments, we will be able to detect functional disorders in the elderly at an early stage. Most often, people of older age groups have cognitive impairments, hearing impairments, visual impairments, motor function, and depression. Early detection of these violations will allow us to preserve the active longevity of our patients, increase life expectancy. We want our loved ones to be with us longer, stay in their right mind longer, be able to engage in their favorite hobbies, learn something new for themselves and just live in this beautiful world.

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