УДК 614

O. GOROSHCHUK, O. BARNA M.D. Ph.D., Ya. KOROST, MD, PhD
/O. Bohomolets National Medical University/

Patient self-education and self-management in general practice

Summary

The article adduces patient self-education and self-management. Methods of treatment of patients with cardiovascular diseases, diabetes mellitus and osteoarthritis were discussed.

Key words: self-education, self-management, cardiovascular disease, diabetes mellitus, osteoarthritis.

Studies in different countries have shown that self-education and self-care programs implementation for patients with chronic diseases (e.g., DM, cancer, osteoarthritis, IHD) can successfully reduce treatment price either improve psycho-social and metabolic outcome. Programs for this type of education are based on the principles of evidence-based medicine. One of the aims of these studies is to share the responsibility for health outcome in chronic patients. It means, that the patient has to have all the knowledge and skills, be confident in using problem-solving techniques and incorporate them in his daily life. Moreover, patients are involved into decision-making process together with primary and secondary care providers and, therefore, can personalize and individualize their treatment strategy. These programs can help the patients to learn about concepts and procedures for successful life with their illness.

Telemedicine/telerehabilitation

- Potentially efficient way for patient's follow-ups includes using of computers and Internet. Thus, doctors have to be familiar with next processes and procedures:
- Teleconsultation – regular tet-a-tet consultation using Skype or other program for video-conference;
- Home telemedicine – represents long-distance care of patients by nurses;
- Telemonitoring – using of facilities, which provide regular monitoring and distance assist;
- Teletherapy – self-performing of exercises by patient, using telemonitoring for remote control and enabling the medical staff to manage the process and implement distance learning.

Cardiovascular diseases

It is widely known, that ischemic heart disease (IHD), or coronary artery disease (CAD), together with atherosclerosis, are strongly influenced by life-style factors, which can be relatively easy modified (obesity, smoking, glucose level, blood pressure level, physical activity, lipoproteins/cholesterol level). Their modification, together with adequate pharmacological therapy, helps to prevent stroke or myocardial infarction recurrence.

In developed countries, there are established so-called «stroke systems», which provide patient's access to services for stroke prophylaxis (prevention), treatment and rehabilitation together with community education and continuous quality improvement activities.

Rehabilitation of Patients with stroke

Statistics shows, that after the onset, almost 70 % of patients can recover functionally; up to 30 % become permanently disabled and the fifth part of patients require institutional care for several months after the onset.

Rehabilitation programs are provided to optimize neurological recovery, teach compensatory strategies for residual deficits, teach activities for learning skills, required for community living, and provide psychosocial and medical interventions to manage depressive disorders. The team provides patient and family education about the medical management of post-stroke complications and secondary stroke prevention and includes trained nurses, neuro-rehabilitation physicians, occupational therapists, neuropsychologists, speech language therapists, and vocational counselors.

The rehabilitation program usually consists of different activities, which restore affected abilities:

- Strengthening of motor skills involves teaching of exercises to improve muscle strength and coordination.
- Mobility training includes learning to use walking aids (walker, canes) or a brace to stabilize and assist ankle strength to help support body's weight while patient relearn how to walk.
- Constraint-induced therapy, also known as forced-use therapy, involves restricting use of an unaffected limb while you practice moving the affected limb to help improve its function.
- Range-of-motion therapy uses exercises and other treatments to help lessening the muscle tension (spasticity) and regaining range of motion.
- Functional electrical stimulation involves using electricity to stimulate weakened muscles,
- Robotic devices to assist impaired limbs with performing repetitive motions, helping them regain strength and function. A recent large study showed no clear advantage to using robotic technology to improve motor recovery after stroke.

О.М. Барна, e-mail: ombarna121@yahoo.com

© О.Ю. Горощук, О.М. Барна, Я.В. Корост 2016

- Virtual reality, such as the use of video games, is an emerging, computer-based therapy that involves interacting with a simulated, real-time environment.
- Non-invasive brain stimulation - trans cranial magnetic stimulation (TMS) has been used with some success to help improve a variety of motor skills.
- Communication disorders correction – recovery of abilities in speaking, listening, writing and comprehension.
- Psychological evaluation and treatment - involve testing of cognitive skills and emotional adjustment, counseling with a mental health professional, or participating in support groups.
- Medications are used to treat depression and moving disorders.
- Biological therapies (stem cells) should only be used as a part of a clinical trial.
- Alternative medicine treatments - massage, herbal therapy and acupuncture.

At least once per year patient has to do medical check-up for recovery evaluation and changing of treatment and rehabilitation strategy.

In Ukraine many governmental and private centers of rehabilitation for patients after stroke are working. Private medical centers usually offer programs, which include all

special attention has to be paid for education of people/ relatives/social workers, who take care of the patient. They have to be taught of different techniques:

- Taking shower, brushing teeth
- Robing (stroke often affects the motor system, that limits motor activity of one of the halves of the body. This creates difficulties in dressing stroke patient)
- Eating/drinking (remember about difficulties with swallowing, feeling of the food or liquid on one or other side of the mouth; difficulties with chewing or saliva production).

Diabetes mellitus (DM)

According to Canadian Diabetes Association, «self-management education» (SME) is a systematic intervention that involves active patient participation in self-monitoring (physiological processes) and/ or decision making (managing) and recognizes patient-provider collaboration and the enablement of problem-solving skills to be crucial to the individual's ability for sustained self-care. DM self-education program is important both for people with determined diagnosis and those patients, who are under the risk of DM development.

Different organizations worldwide (The American Association of Clinical Endocrinologists, American Diabetes Association, WHO) pay huge attention to the problem of the patient's self-studying. The ADA discovered four times increase of diabetic complications in patients, who have not undergone any course related to the self-education.

There were marked out seven the most important factors, which play an essential role in DM flow: adequate physical activity, healthy food, blood sugar level control, compliance with medications, healthy coping, problem solving and risk-reduction skills. However, many doctors, especially primary physicians do not discuss with the patient their individual regimen and self-care program. Therefore, it is highly recommended for general practitioners to create individual plan for each chronic patient, aiming to have good compliance and regular follow-ups.

The diabetes management team should include primary care physicians, nurses, dietitians, pharmacists, psychologists, certified diabetes educators and researchers. Standards for self-care education in diabetic patients have to be evidence-based and be reviewed every 5 years.

According to the WHO, in countries with established network of schools for people with diabetes mellitus, was observed decreasing of deaths among diabetic patients up to 30 %, and twice reduced the risk of diabetic coma in children. Moreover, schools can decrease the cost of public or private funds in the treatment of diabetes by 35 %.

Since 2005 in Ukraine more than 200 schools for adult patients with DM have been organized, which are located in outpatient departments, polyclinics and endocrinology institutes in Kyiv, Kharkiv and other cities and towns. Special schools for children with DM have beenestablished in Kyiv City Children Clinical Hospital No. 6, «OHMATDYT» etc. Both governmental and private charity funding supports them. Teaching in schools is free, can be individual and in groups. A full course usually consists of 6-8 lectures and workshops.

In comparison to European and world self-education practice, in Ukraine endocrinologist, nurse-dietitian and psychologist hold the lessons. There is still huge lack of professionals with adequate education, who are able to teach patients.

Lessons are provided for three categories:

- Patients with DM type I;
- Patients with DM type II;
- People under the risk of DM, relatives of diabetic patients, who suffers from certain chronic diseases of the gastrointestinal tract, are overweight and obese.

Lessons for the first two groups include following information: what is DM, its complications and how to avoid them; blood glucose measure and insulin intake through injection pens and syringes; what is bread unit (BU) and how to calculate the dose of insulin depending on the number of BU; measuring the urine acetone at home; understanding the need of regular HbA1c monitoring etc.

The second group learns the following: symptoms, complications of diabetes; illness prevention, nutrition, physical activity, body weight normalization etc.

Programs for children's schools mostly include information about correct insulin intake, how to avoid hypoglycemia, because all patients younger 14 years old have DM type I. Young patients have regular courses together with their parents or mentors. Additional attention has to be paid for psychological support of children (especially at school), explanation of the importance of keeping diet, regular physical activity and emphasizing on lifelong diabetes care.

Osteoarthritis

Patient with osteoarthritis has to know, how to manage their condition. In developed countries, group of professionals, who have regularly take care of the patients with rheumatoid or osteoarthritis, includes a family doctor, rheumatologist, nurse, occupational therapist, physiotherapist, social worker, pharmacist, dietitian, psychologist and orthopedic surgeon. In Ukraine there are no specific medical centers and establishments, which provide full observation of the arthritic patients. General practitioners are going to be the main professionals, who will help the patients to manage their disease.

According to the information from the Canadian Arthritis Society, programs for patients include the next points and topics:

- Learning about different types of arthritis (inflammatory via non-inflammatory);
- Active patient's involving into the decision making process
- Types of exercises and their frequency

- Importance of the healthy weight maintenance
- Learning about medications and their intake
- Information about health-care providers and the patient's data they have to know.

Physical activity in patients also has specific requirements, indications and restrictions. If patient is unable to do exercises, specific breathing exercises or posture intervention can be used.

The main contraindications for physical training:

- rheumatoid arthritis exacerbation, accompanied by severe pain and inflammation
- systemic manifestations of the disease with severe lesions of internal organs
- related chronic diseases (infections, cardiovascular and respiratory failure).

Резюме

Самоосвіта та самодопомога пацієнта в загальній клінічній практиці

О. Ю. Горощук, О. М. Барна, Я.В. Корост

Національний медичний університет імені О.О. Богомольця, Київ

У статті висвітлено шляхи самоосвіти та самодопомоги хворого. Методи лікування пацієнтів із серцево-судинними захворюваннями, цукровим діабетом та остеоартритом були обговорені.

Ключові слова: самоосвіта, самодопомога, серцево-судинні захворювання, цукровий діабет, остеоартрит

Резюме

Сомообразование и самопомощь пациента в общей клинической практике

О. Ю. Горощук, О. Н. Барна, Я.В. Корост

Национальный медицинский университет имени А.А. Богомольца, Киев

В статье освещены пути самообразования и самопомощи больного. Методы лечения пациентов с сердечно-сосудистыми заболеваниями, сахарным диабетом и остеоартритом были обсуждены.

Ключевые слова: самообразование, самопомощь, сердечно-сосудистые заболевания, сахарный диабет, остеоартрит

Стаття надійшла: 15.12.2016

Received: 15.12.2016