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Methods of evaluation of demand for care among the disabled

Every year increasing number of the disabled is a very important factor for the health policy of the State with respect to granting benefits and allowances and organizing of care of this group of patients.

The National Census conducted in Poland in 2002 confirmed that disability becomes an increasing social problem. In 2002, the number of the disabled was 5,456.7 thous., which constituted 14.3% of the total number of the Polish population, compared with 1988 – 9.9%. This means that every seventh Polish inhabitant was disabled (in 1988 it was every tenth).

An increase in the number of the disabled during the last 14 years results mainly from the process of ageing of society. Disability is both a biological and psychosocial fact, and defining it encounters the same difficulties as the definition of health. There are many definitions of disability, from very general to very detailed. To date, no definition has been developed which would univocally determine the phenomenon of disability. The World Health Organization (WHO) differentiates between the following terms: • impairment – means loss of consciousness or abnormality in the structure of anatomical function • handicap – in case of an individual means damage resulting from impairment or disability, limiting or making impossible for this individual to perform roles considered as 'normal' (taking into account age, gender, and social and cultural factors) for this person • disability – means any limitations or lack of possibilities (resulting from impairment) to perform certain activities in a way or within the scope considered as normal for humans (5). The WHO definition was reproached for "medicalization" of the problems of the disabled, and not containing social and cultural aspects associated with disability (11). However, its advantage is that health criteria are subject to measurements (without consideration of the social and economic spheres), and in consequence, allow the determination of the actual or close to actual demand for care.

An overall analysis of the health needs of a disabled person should be applied on various levels of care. It may serve the facilitation of the diagnostic-treatment process, an improvement in the state of functioning and quality of life, selection of the optimum place according to health situation and demand for care, reduction of expenditures for unjustified medical-social services, as well as the planning of the organization of care. In order to evaluate health needs of a disabled person it is necessary to perform a multi-factor assessment of the functioning of an individual and his/her quality of life.

Disability resulting from a disease or injury and the possibility of independent functioning should be considered and evaluated in the home environment and compared with functioning prior to the disease (10).

It is commonly assumed that the basic areas of functioning of an individual, which should be subject to evaluation are: • Activities of Daily Living (ADL) • somatic health (physical state)

- mental health, including cognitive functions
- social life conditions
- economic life conditions
- environmental conditions
- level of load among care providers (1).

The first three factors (i.e. efficiency with respect to daily living activities, physical state and mental health) concern the biological aspect of the functioning of an individual. Subsequent factors (fourth and fifth) pertaining to economic and social conditions describe the functioning of an individual in society. The last two – environmental conditions and load among those who provide care – are factors which may affect the maintenance of the capability of living in an individual community or the natural environment. Each of these seven factors, which are subject to evaluation, comprises in itself many components examined with the use of specially developed scales. Hence, the objective of this study is to present selected methods of evaluation of the demand for care among the disabled.

METHODS OF EVALUATING THE DEMAND FOR CARE AMONG THE DISABLED

Efficiency in performing everyday life activities is the method of classification of patients, which the authors designate as the ADL Scale (Activities of Daily Living). In practice, the basic ADL scales (P-ADL) and instrumental scales (I-ADL) are applied. The first (P-ADL) are useful for determining the goals of care of patients showing a high degree of disability (who require regular assistance in basic activities). Within P-ADL scale, the oldest and most frequently used evaluation techniques are the Katz Index (7) and Barthel Index (8). The first technique evaluates the degree of dependence of the person examined on the assistance of other people with respect to taking a bath, getting dressed, consumption of meals, moving and efficiency of the sphincter. The second technique additionally covers care of the appearance, locomotion and climbing stairs. Barthel technique is compact, easy to construct and use, and therefore may be applied by physicians, physiotherapists, nurses, social workers and others dealing with patients who require care-treatment and rehabilitation services. It is most often applied for the evaluation of capability prior to admission and during the stay in a care-treatment facility.

ADL instrumental scales are applied to evaluate the capability of patients to perform more complex activities which require planning, the realization stage by stage and co-ordination of actions (e.g. preparation of meals, shopping, managing money).

Within the I-ADL scale the most frequent techniques are the Lowton scale, Frenchay Activity Index, and FIM scale (Functional Independence Measurement). The FIM scale is the most precise technique for evaluating daily life activities. Measurement is performed according to a 7-degree evaluation scale, and covers 18 activities which are components of self-care, sphincter control, locomotion, communication and social awareness. Another method for the evaluation of a disabled patient is the application of the so-called 'Repta' functional index developed by specialists from the Upper-Silesian Rehabilitation Centre (9). The authors report that this is a universal tool for evaluation of daily living activities in many neurological diseases and diseases of the motor organ.

In order to assess the demand for care of a disabled person it is necessary to evaluate mental health. This evaluation covers an assessment of the efficiency with respect to cognitive functions and the emotional state of a patient. The examination of the cognitive function detects dementia, which is a serious burden for the family, as well as for the system of medical and care services, and allows making prognoses concerning the demand for these services (4). In primary health care the following methods are applied: Mini Mental Examination by Folstein, Katzman Cognitive Functions Impairment Test, or brief Pfeiffer Mental State Evaluation Questionnaire. These methods enable the preliminary evaluation, which is not equivalent to making the diagnosis of dementia; however, they indicate patients requiring more comprehensive diagnostics, and may be applied by family physicians. The subsequent component of evaluation of patients' demand for care is the determination of their

emotional state. Here, the Geriatric Scale for Assessment of Depression and Hamilton Depression Scale are most frequently applied.

An inseparable element of the overall valuation of the demand for care among the disabled is the examination of the social sphere of their life and assessment of economic standard. Social situation and housing conditions exert an influence on efficiency – degree of independence, health status and the feeling of well being. There are few methods designed exclusively for the evaluation of the social sphere of life. An example may be the EAST-care questionnaire form (Evaluation System of the Elderly), recommended for assessment of the functional state of old-aged patients in primary health care (3). It concentrates on the quality of life rather than the disease and takes into consideration the role of family care providers. The EASY-care questionnaire form is designed mainly to help physicians and other primary health care staff to recognize needs, and improve the care provided by them. Moreover, data obtained with the use of EASY-care may serve epidemiological purposes, the measurement of socio-medical needs of patients, including the degree of satisfying them with services, and justify the allocation of funds.

One of the new methods of evaluation of the degree of disability is the scale of medical epicrisis developed at the Institute of Agricultural Medicine in Lublin within the programme: Disability among rural population, methods of classification of disability in the light of the studies by the Institute of Agricultural Medicine and other centres. This scale is useful for the qualification of the people examined into the group of the disabled, while carrying out various research and scientific programmes (6). The determination of the proper degree of medical epicrisis is based on the disease diagnosed, intensity of its symptoms, its course, complications and anticipated consequences. Closely connected with the above-mentioned problem is the evaluation of the necessary scope of medical care, rehabilitation services, care on the part of other people, type of provision with orthopaedic-rehabilitation aids, and the evaluation of social welfare (e.g. material, occupational, placing in a care home for the chronically ill). A defined level of medical epicrisis indicates the most important requirements with respect to medical, prophylactic and social assistance (6).

An innovatory scale determining the scope of patient's independence is the method of self-care efficiency of a patient by Adamczyk (2). The application of this method allows the determination of four levels of self-care efficiency: complete, slightly limited, considerably limited and lack of self-care efficiency.

The degree of independence of a disabled person in the above-mentioned method was presented in a descriptive way: • independent with respect to basic functions • independent with the use of simple orthopaedic aids • independent after adjustment of the surroundings (e.g. handrails and elimination of architectural barriers) • assistance from second persons with selected everyday activities • physical help with selected or all everyday activities • total dependence on help from second or even third persons (10).

Acquired disability examined by the authors, which is the cause of incapability of independent existence, is often due to multiple diseases and concerns mainly patients at perigeriatric or geriatric age. Therefore, a traditional approach to the evaluation of the state of health – disease-oriented – is insufficient in the case of these people. In this situation, it is important to determine what functions in everyday life limit a patient. Hence, the selection of methods determining the demand for care of the disabled is of prime importance.

DISCUSSION

An ideal method should be reliable in all cases, repeatable, easy to perform. The sensitivity of the method is also very significant (conversion of the clinical state into scores) and the validity (conformity of evaluations). Due to the complexity of clinical situations, however, an ideal method does not exist,

A comprehensive evaluation of the needs of the disabled requires close co-operation between people of various professions, especially the staff of health care and social welfare. Different European countries try to achieve an optimum solution in their own ways, on the scale of their possibilities, knowledge and experience (3). Similar to other areas of health care, there is a need to implement the principles of economic calculation. Increasingly more often, services receivers aware of their rights will claim precise information concerning costs and principles of acquired services. This is associated with the necessity to continue studies of the methods of evaluation, classification of disabled patients, in order to evaluate the demand for care.

CONCLUSIONS

1. To date, no universal research tool has been developed for the evaluation of actual demand for care.

2. The evaluation of the actual demand for care requires the study and determination of dysfunction limiting the disabled.

REFERENCES

1. Abelin T. et al.: Measurement in health promotion and protection. WHO Reg. Office for Europe, 1987.
2. Adamczyk K.: Neurological nursing. Czelej Publ., Lublin 2000.
3. Bień B. et al.: Old age protected. Family care providers for old-aged disabled in Poland – a comparative study of urban and rural environment. TEXT Publ. Off., Kraków 2001.
4. Czupryna A. et al.: (ed.) Public health, 2nd edition. Univ. Med. Publ. "Versalius", Kraków 2001.
5. International Classification of Impairments, Disabilities and Handicaps. World Health Organisation, Geneva 1980.
6. Karwat I. D.: Analysis of medical and social problems of disabled rural inhabitants. Dissertation for the degree of Dr. habil., Institute of Agricultural Medicine, Lublin 1996.
7. Katz S. et al.: Studies of illness in the aged. The index of ADL: A standardized measure of biological and psychosocial function. JAMA, 1963.
8. Mahoney F. I., Barthel D. W.: Functional evaluation: Barthel Index M. D. State Med. J., 14, 61.
9. Opara J.: Analysis of usefulness of selected scales of stroke for the evaluation of the results of rehabilitation of patients with hemiparesis. Dissertation for the degree of Dr. habil., Medical University, Katowice 1996.
10. Skwarcz A., Majcher P.: Selected physical and functional examination of the disabled. In: E. Rutkowska: Rehabilitation and Nursing of the Disabled – A Handbook for the Students of Nursing. Czelej Publ., Lublin 2002.
11. Wapiennik E., Piotrowicz R.: A Disabled Person – A Citizen of Europe with Full Rights. Ed. European Integration Committee Office, Warszawa 2002.

SUMMARY

Methods of evaluating the demand for health care among various groups of patients, called patient classification methods, have long since been functioning, especially with reference to hospitalized patients. These methods are most often used for medical staff scheduling, establishing budgets of health care units, and the planning of diagnostic, treatment and care services. Due to an increasing year by year number of the disabled, a growing interest is observed in their health needs. This is of great importance for the health policy of the State with respect to granting benefits and allowances, as well as organizing of care of this group of patients. A comprehensive evaluation of the needs of the disabled requires close co-operation between people of various professions, especially the staff of health care and social welfare. An overall evaluation of a disabled person should be applied on various levels of care. It may serve the facilitation of the diagnostic-treatment process, an improvement of the functional state and quality of life of these people, the selection of optimum place according to health situation and care needs, reduction of expenditures for unjustifiable medical-social services, and planning of the organization of care. Similar to other areas of health care, in the care of the disabled there is a need to implement the principles of economic calculation. Increasingly more often, the services receivers aware of their rights will claim precise information concerning costs and principles of those services. This is associated with the necessity to continue studies of the methods of evaluation and classification of the disabled patients in order to assess their demand for care. The objective of the study was the presentation of selected methods of evaluation of the demand for care among the disabled.

Metody oceny zapotrzebowania na opiekę osób niepełnosprawnych

Metody oceny zapotrzebowania na opiekę zdrowotną różnych grup pacjentów zwane systemami klasyfikacji pacjentów funkcjonują od dawna, zwłaszcza w odniesieniu do chorych hospitalizowanych. Najczęściej są wykorzystywane do planowania kadr medycznych, ustalania budżetów zakładów opieki zdrowotnej, w planowaniu usług diagnostycznych, leczniczych i opiekuńczych. Wzrastająca z każdym rokiem liczba osób niepełnosprawnych powoduje coraz większe zainteresowanie potrzebami zdrowotnymi tych osób. Ma to istotne znaczenie dla polityki zdrowotnej państwa w zakresie przyznawania rent i zasiłków oraz organizacji opieki nad tą grupą pacjentów. Pełna ocena potrzeb niepełnosprawnych wymaga ścisłej współpracy osób o różnych profesjach, a zwłaszcza pracowników opieki zdrowotnej i pomocy społecznej. Całościowa ocena osoby niepełnosprawnej powinna być stosowana na różnych poziomach opieki. Może ona służyć usprawnieniu procesu diagnostyczno-leczniczego, poprawie stanu funkcjonowania i jakości życia tych osób, wyboru optymalnego miejsca pobytu zależnie od sytuacji zdrowotnej i potrzeb opiekuńczych, zredukowaniu wydatków na nieuzasadnione usługi medyczno-socjalne, planowaniu organizacji opieki nad tymi osobami. Tak jak w innych dziedzinach opieki zdrowotnej w opiece nad osobami niepełnosprawnymi istnieje potrzeba wprowadzenia zasad rachunku ekonomicznego. Coraz częściej odbiorcy, świadomi swoich praw, będą się domagać dokładnych informacji o kosztach i zasadach otrzymywanych świadczeń. Wiąże się to z koniecznością kontynuowania badań nad metodami oceny i klasyfikacji pacjentów niepełnosprawnych w celu oceny zapotrzebowania na opiekę. Celem pracy było przedstawienie niektórych metod oceny zapotrzebowania na opiekę osób niepełnosprawnych.