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OFICJALNE PISMO POLSKIEGO TOWARZYSTWA FIZJOTERAPII

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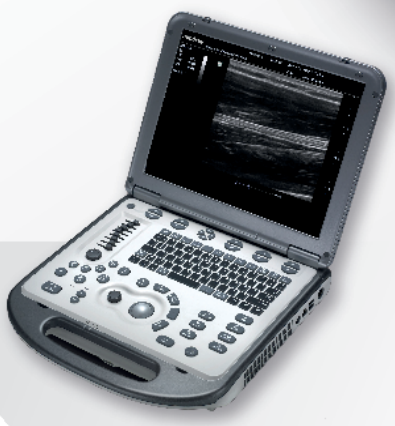

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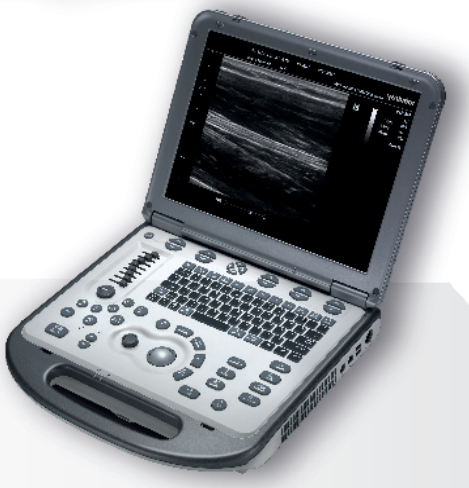

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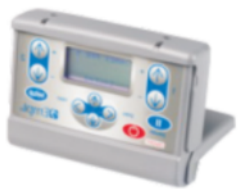

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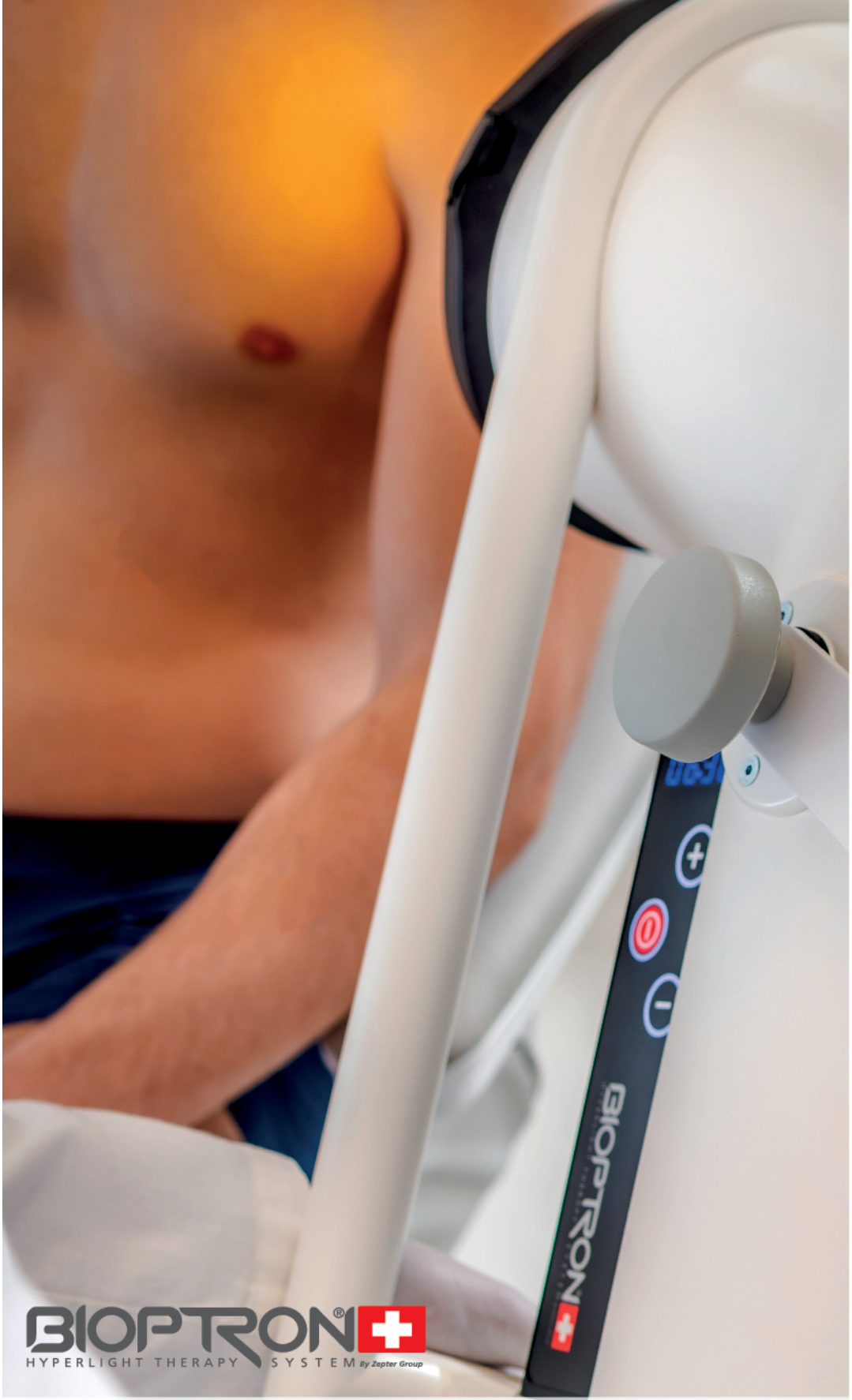

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Pełna oferta:

fizjoterapia polska
nr 3/2021 (21)

Conceptions of the provision of physiotherapy care financed with public funds of the National Health Fund in the perspective of demographic changes

Koncepcje zabezpieczenia fizjoterapeutycznego finansowanego ze środków publicznych NFZ w perspektywie zmian demograficznych

Dominik Dziurda[A,D,E,G], Dorota Mańkowska[A,B,C,D,E,F], Zbigniew Tytko[A,C,D,E,F], Piotr Bednarski[E], Katarzyna Leoszkiewicz[C,D], Agata Bąk[B], Katarzyna Kędzior[A,D,E,F], Roman Topór-Mądry[A,G]

Agencja Oceny Technologii Medycznych i Taryfikacji / Agency for Health Technology Assessment and Tariff System, Poland

Abstract

Introduction. In 2018, outpatient physiotherapy financed by the National Health Fund (pl. Narodowy Fundusz Zdrowia, NFZ) was provided to 2.6 million patients, i.e. approx. 6.8% of Poland's population with 128 million services and expenditures amounting to PLN 937 million. The unmet demand for physiotherapy services expressed in terms of waiting times, given the pressure of the ongoing demographic changes, is becoming an increasingly serious challenge for the public healthcare system. International experience suggests that changing the organisation and functioning of physiotherapy could improve its efficiency.

Aim of the study. The study aims to outline the prospects for optimal physiotherapy care provision (organisational and financial framework) within the public funds at the disposal of the National Health Fund (NFZ).

Materials and methods. The sources of data for the analyses were: the database of NFZ services, demographic data and projections of Statistics Poland (pl. Główny Urzad Statystyczny, GUS), literature on the subject and reports concerning organisational solutions. Demographic projections for the country until 2030 (GUS) were used for estimating the demand for outpatient physiotherapy services

Results. Individuals aged 60 and older account for more than half of patients in outpatient physiotherapy (OP). In the perspective of the next decade, the proportion of patients aged ≥ 60 will increase by another 11%. The presented concept of Primary Physiotherapy Care (PPC) involves the cooperation of Primary Healthcare (PHC) with outpatient physiotherapy. PPC assumes the shift of the provided treatment from the provision of single treatments or cycles to physiotherapy care and a population-oriented approach.

Conclusions. The direction of physiotherapy care evolution should take into account different perspectives: (1) patient's perspective: a) tailoring the therapeutic process to the patient's condition, b) implementing the process in accordance with available scientific evidence and clinical guidelines, c) patient's share in the responsibility for his or her health condition; (2) healthcare provider's perspective: a) orienting towards achieving therapeutic effect (value), instead of orientation towards the provision of treatment, b) increasing the independence of physiotherapists as therapy managers, c) adapting human resources and premises to increased patient population and to the structure of treatments provided according to the guidelines, d) using new forms of therapy: education, instruction, learning self-care at home; (3) payer's perspective: a) departing from a fee-for-service system towards financing the therapy/care instead, b) introducing indicators for adjusting the amounts of financing from public funds depending on measurable therapeutic effects.

Key words:

primary physiotherapy care, outpatient physiotherapy

Streszczenie

Wstęp. Fizjoterapia ambulatoryjna finansowana przez NFZ objęła w 2018 roku 2,6 mln osób, tj. ok. 6,8% populacji Polski oraz 128 mln świadczeń przy nakładach finansowych na poziomie 937 mln złotych. Niezaspokojony popyt na usługi fizjoterapeutyczne, wyrażony czasem oczekiwania na uzyskanie świadczenia, przy presji zachodzących zmian demograficznych, staje się coraz poważniejszym wyzwaniem dla publicznego systemu ochrony zdrowia. Doświadczenia międzynarodowe wskazują, że zmiana sposobu organizacji i funkcjonowania fizjoterapii może przyczynić się do poprawy jej sprawności.

Cel pracy. Celem pracy jest nakreślenie perspektyw optymalnego zabezpieczenia fizjoterapeutycznego (ram organizacyjno-finansowych) w ramach środków publicznych będących w dyspozycji Narodowego Funduszu Zdrowia.

Materiały i metody. Źródłem danych do analiz były: baza świadczeń NFZ, dane demograficzne i prognozy Głównego Urzędu Statystycznego (GUS), literatura przedmiotu oraz raporty dotyczące rozwiązań organizacyjnych. Prognozy demograficzne dla kraju do 2030 r. (GUS) wykorzystano do oszacowania zapotrzebowania na świadczenia w fizjoterapii ambulatoryjnej.

Wyniki. Ponad połowę pacjentów fizjoterapii ambulatoryjnej (FA) stanowią osoby w wieku 60 lat i więcej. W perspektywie następnego 10-lecia udział pacjentów 60+ wzrośnie o kolejne 11%. Przedstawiona koncepcja Podstawowej Opieki Fizjoterapeutycznej (POF) zakłada współpracę Podstawowej Opieki Zdrowotnej (POZ) z fizjoterapią ambulatoryjną. POF zakłada zmianę filozofii udzielanej terapii z realizacji pojedynczych zabiegów lub cykli na opiekę fizjoterapeutyczną i podejście populacyjne do opieki.

Wnioski. Kierunek ewolucji systemu zabezpieczenia fizjoterapeutycznego powinien uwzględniać różne perspektywy: (1) pacjenta: a) zindywidualizowanie procesu terapii do stanu pacjenta, b) realizację procesu opartą na dostępnych dowodach naukowych i wytycznych klinicznych, c) współodpowiedzialność pacjenta za stan zdrowia; (2) świadczeniodawcy: a) nastawienie na osiąganie efektu terapeutycznego (wartości), a nie na realizację zabiegów, b) zwiększenie niezależności i samodzielności fizjoterapeutów w roli zarządzających terapią, c) dostosowanie zasobów ludzkich i lokalowych do zwiększonej populacji pacjentów oraz do struktury zabiegów realizowanych zgodnie z wytycznymi, d) wykorzystywanie nowych form terapii: edukacji, instruktażu, nauki samoopieki w domu; (3) płatnika: a) odejście od płacenia fee-for-service za poszczególne zabiegi na rzecz finasowania za terapię/opiekę, b) wprowadzenie wskaźników korygujących wielkość finansowania ze środków publicznych zależną od mierzalnych efektów terapeutycznych.

Słowa kluczowe:

podstawowa opieka fizjoterapeutyczna, fizjoterapia ambulatoryjna

Introduction

The increasing physiotherapy needs are becoming a challenge for the public healthcare system. What is commonly emphasised in the conditions of the ongoing demographic change, is the need for adjusting the organisational and legal framework of the system to make it promote the efficiency of physiotherapy care. As early as 2014, the Supreme Audit Office (pl. *Najwyższa Izba Kontroli, NIK*) in its audit conclusions [1] emphasised the necessity to search for solutions for the functioning of therapeutic rehabilitation in Poland that would ensure more effective use of funds in economic and medical terms (allowing to obtain better health effects). Increased life expectancy was indicated by NIK as one of the causes of the increasing demand for rehabilitation services. Therefore, it is of particular importance for planning such changes that the specific characteristics of the elderly patient is taken into account, including multimorbidity and chronic nature of his or her diseases.

International experience suggests that changing the organisation and functioning of physiotherapy could improve its efficiency. In practice, this means the necessity to find the answer to the question – how should the process of providing outpatient physiotherapy services in Poland be re-organised to ensure better use of the available resources and tailor the care to the projected conditions?

This study assumes that the solutions aimed at optimising resource allocation in the therapeutic rehabilitation system, including, in particular, outpatient physiotherapy, should primarily be based on:

- the identification of current conditions of physiotherapy (i.a. the characteristics of the current beneficiaries of outpatient physiotherapy, organisational and legal conditions, technological conditions – based on the previous scope of physiotherapy care and clinical guidelines);
- projections concerning the demand for physiotherapy services (estimating the target population in the long-term horizon);
- identification of international solutions regarding the organisational framework for the provision of outpatient physiotherapy services.

The study aims to outline the prospects for optimal physiotherapy care provision (organisational and financial framework) within the public funds at the disposal of the National Health Fund. Due to the scope of the works that constitute the source and premises for the proposed organisational solutions, the presentation of results has been narrowed down to the most important information.

Materials and methods

The analysis of the research problem included the following methods and data sources:

- qualitative analysis of reporting data of the National Health Fund (pl. *Narodowy Fundusz Zdrowia, NFZ*) concerning population structure, waiting time for services and the current framework for the functioning of outpatient physiotherapy;
- the analysis of demand for services based on demographic projections for Poland and on the data of Statistics Poland (pl. *Główny Urząd Statystyczny, GUS*);
- literature and reports on organisational solutions.

Characteristics of the current state of outpatient physiotherapy

The scope of the analysis includes outpatient physiotherapy services financed from funds at the disposal of the National Health Fund and specified in the Regulation by the Minister of Health on guaranteed therapeutic rehabilitation services. The scope of the said services includes an appointment with a physiotherapist, physiotherapeutic kinesiotherapy, physical therapy treatments and massages. The list of treatments financed from public funds comprised of a wide range of procedures not assigned to specific medical conditions or functional status. Physiotherapy is provided free of charge for insured persons based on a referral from every health insurance doctor [2]. Effective 1 January 2019, a referral for physiotherapy does not have to include a list of treatments with dosage or the site to which the treatments should be applied, what is important are the elements concerning the primary diagnosis indicated by the doctor, or other additional factors which might affect the course of the treatment. It is the physiotherapist who independently examines the patient in terms of the assessment of his or her functional status and plans therapeutic management (i.a., determines the scope, type and frequency of the treatments, the course of the therapy). The person authorised to provide this type of diagnosis and determine the management plan is a physiotherapist with a Master's degree [3]. Additionally, pursuant to the current ordinance by the President of the National Health Fund on determining the conditions for concluding and performing contracts in the field of therapeutic rehabilitation, a treatment cycle is initiated, if available, within 14 days of the date of the appointment with a physiotherapist held before the cycle of treatments [4]. At the same time, effective 1 July 2018, combined products for the contracted scope of therapeutic rehabilitation were distinguished, including outpatient physiotherapy intended for patients with a legal confirmation of severe disability . Treatment for these patients is provided outside of patient waiting lists, and there are no limits for its financing [5]. It is currently estimated that in Poland, there are 890 thousand individuals with confirmed severe disability (based on the data from the 2011 Census. The number accounts for approx. 30% of all people with diagnosed disability) [6].

Individual treatments and appointments with a physiotherapist are paid on a fee-for-service basis, and the National Health Fund assigns a certain amount of points to each individual service. Point scores for treatments range from 1 point (general fitness exercises in a group) to 28 points (one-to-one sessions with a patient), where an appointment with a physiotherapist is rated at 15 points (it is assumed that the mean cost of one point is approx. PLN 1) [7].

The population who received outpatient physiotherapy financed from the funds of the National Healthcare Fund in 2018 consisted of: children and adolescents under 19 y/o who constituted 6.2%, 20–59 y/o – 41.8% and ≥ 60 y/o –51.9% (they constituted 2.1%, 5.2% and 14.2%, respectively, of the overall population in their age groups) (Table 1). In the same year, outpatient physiotherapy patients accounted for 6.8% of the general population [8].

Table 1. Number of patients and number and value of outpatient physiotherapy services provided in 2018

Age group of patients (in years)	Patients		Number of provided services		Value of provided services (in PLN)	
	number	% share	number	% share	number	% share
0–19	162 485	6.2%	5 163 069	4.0%	55 743 075	5.9%
20–59	1 086 729	41.8%	50 570 779	39.5%	362 274 622	38.6%
≥ 60	1 350 604	51.9%	72 250 151	56.5%	519 314 592	55.4%
Total	2 599 818	100.0%	127 983 999	100.0%	937 332 290	100.0%

Source: Elaboration by the Agency for Health Technology Assessment and Tariff System based on data from the National Health Fund

The structure of outpatient physiotherapy patients by ICD-10 medical diagnosis indicates that approx. three-fourths of patients received services for musculoskeletal system dysfunctions, and more than half of them (55.4%) for joint degeneration or pain related to the said system (Table 2).

Table 2. The structure of patients by medical diagnosis in outpatient physiotherapy in 2018

Groups of ICD-10 diagnoses		% share of patients
M – diseases of the musculoskeletal system	total	71.0%
	including: osteoarthritis, back pain	55.4%
G – diseases of the nervous system		14.8%
Other diagnoses		14.3%
Total		**100.0%**

Source: Elaboration by the Agency for Health Technology Assessment and Tariff System based on data from the National Health Fund / diagnoses: M15–19, 47, 54, 99*

Services within outpatient physiotherapy include a wide range of kinesiotherapy and physical therapy treatments, massages and appointments with a physiotherapist. The structure of the abovementioned services in terms of numbers, without taking physiotherapist appointments into account, in the period from January 2018 to July 2019 was almost constant and is as follows: 71% are physical therapy treatments, 21% – kinesiotherapy treatments, 8% – massages. On the other hand, the number of physiotherapist appointments is rapidly increasing, from approx. 2 thousand appointments monthly in January, to 211 thousand appointments in July 2019, which resulted from a change in regulations concerning guaranteed services [8].

Waiting times for the provision of services were measured as starting on the date of referral and ending on the date of therapy commencement. The study pertains to patients who received therapy in the first half of 2019. The mean waiting time for all the patients was approx. 114 calendar days. The waiting time in the first quartile amounted to 32 days, the median reached the value of 84 days, and the value in the third quartile was 114 days (the calculations take into account data for 6 Voivodeship Branches of the National Health Fund and patients for whom waiting times were up to 1095 days, treating longer periods as reporting errors) [8]. Of note, the time from the date of referral to therapy commencement could largely result from patients' behaviour. This is because it was partly dependent on the time that passed from the date of referral to the date of its registration with a physiotherapy clinic or the patient's ability to undergo physiotherapy on the first date available with a particular physiotherapy clinic.

The Agency for Health Technology Assessment and Tariff System (pl. Agencja Oceny Technologii Medycznych i Taryfikacji, AOTMiT) conducted detailed analyses of data from the National Health Fund on outpatient physiotherapy (covering the period from January to June 2019 [8, 9] and in the calculations of outpatient physiotherapy repeatability indicator, data from 2017 and 2018) dividing the patients into two groups: those with legal confirmation of severe disability and those without such a confirmation. They covered, i.a., indicator analyses from the provision of services, such as (1) outpatient physiotherapy repeatability indicator; (2) outpatient physiotherapy cycle intensity indicator; (3) outpatient physiotherapy service structure indicators (including, among others, the indicator of the proportion of kinesiotherapy sessions in the cycle, and the ratio of the proportion of one-to-one sessions in the cycle).

The primary results of this analysis are as follows: (1) 63% of the analysed patients without the legal confirmation of severe disability received at least one cycle of outpatient physiotherapy in the years 2017–2018 (in the group of patients with severe disability the percentage was 74%); (2) 636.4 thousand outpatient physiotherapy cycles (84%) have a very high cycle intensity indicator in the range from < 0.9 to 1 >, which means that the treatment is provided practically every day (in patients with severe disability this share was 74% of cycles); (3) 898,684, i.e. 56.8% of patients who commenced physiotherapy in the first half of 2019 did not receive kinesiotherapy services; (4) therapy duration from a patient's perspective: 41% of therapy duration were one-to-one sessions, with similar proportions of physical therapy and kinesiotherapy (43% and 39%, respectively), 59% of therapy duration were services provided to a group of patients; (5) therapy duration from a physiotherapist's perspective: 68% of a physiotherapist's working time is spent on one-to-one sessions, including 29% of working time spent on one-to-one physiotherapy sessions, and 24% on one-to-one kinesiotherapy sessions; (6) 45% of all services are one-to-one services, and 41% is physical therapy provided to groups of patients; (7) 63% of the point score are one-to-one services, and 52% – physical therapy services [8, 9].

Outpatient physiotherapy demand projection until 2030

An analysis of retrospective reporting data indicates that the number of people aged ≥ 60 receiving physiotherapy services is steadily increasing. In the years 2014–2018, patients from this subpopulation accounted on average for 48.9% of the general patient population, they received 53.5% of all provided services, which constituted 53.0% of the services' value. In the first half of 2019, a further increase can be noticed in these values which amounted to 55.2%, 58.35% and 57.7% respectively (Table 3) [8, 9].

Table 3. The use of outpatient physiotherapy services by population aged ≥ 60 in 2014–2019*

Provided services		2014	2015	2016	2017	2018	1st half of 2019
The population aspect	number of patients	1 194 250	1 236 996	1 277 984	1 305 789	1 350 604	905 753
	% share in total number of patients	45.8%	47.4%	48.9%	50.5%	51.9%	55.2%
	% of Poland's population*	22.4%	23.1%	23.8%	24.5%	25.1%	x
Number of provided services	number of services**	62 503 225	65 147 299	67 057 412	68 547 618	72 250 151	39 624 877
	% share in total number of services	50.5%	51.9%	53.5%	55.1%	56.5%	58.3%
Value of services in PLN	value	454 059 202	468 206 228	485 141 144	492 641 754	519 314 592	303 761 499
	% share in total value of services	50.3%	51.7%	53.2%	54.6%	55.4%	57.7%

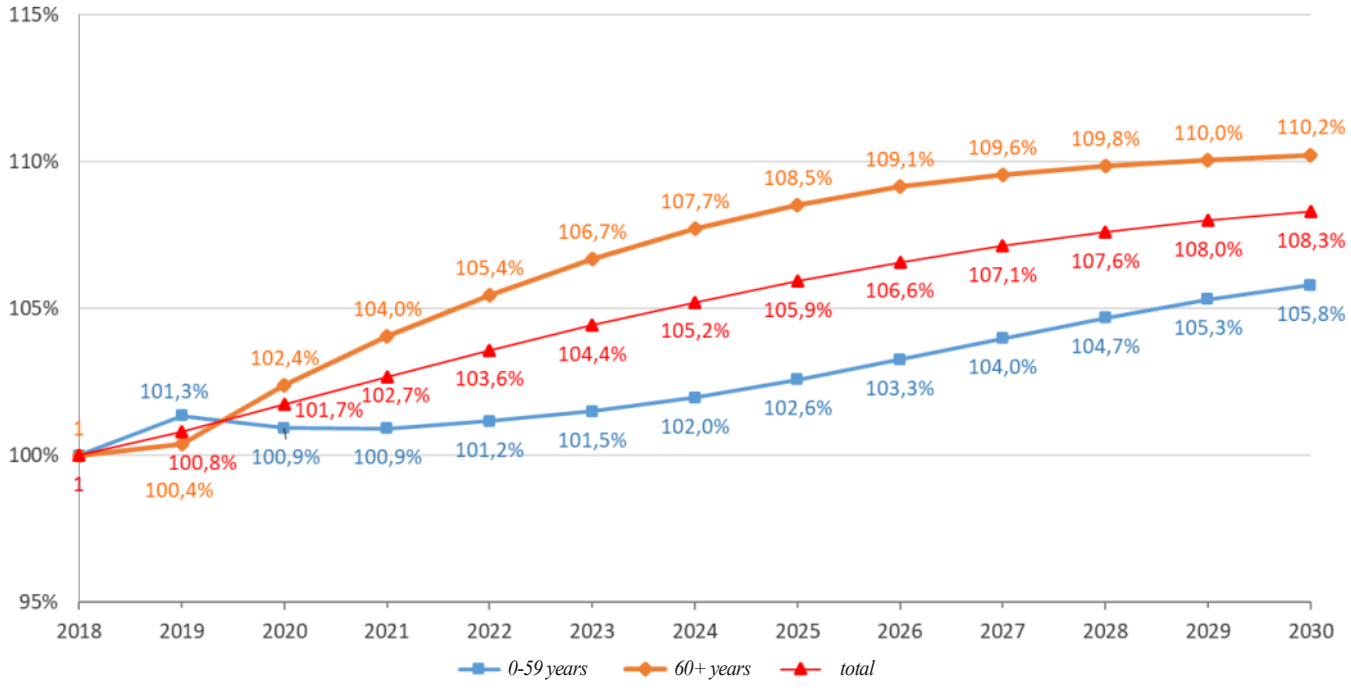
Source: Elaboration by the Agency for Health Technology Assessment and Tariff System based on data from the National Health Fund / data for the 1st half of 2019, * the percentage which individuals aged ≥ 60 accounted for in the entire population of Poland, ** number of services provided in the number of services provided in a particular calendar year to individuals aged 60+*

According to the projection by GUS, in the next decade, i.e. until 2030, significant demographic changes will occur. The projection for the demand for services was based on the above-mentioned Statistics Poland data divided by year and sex, and National Health Fund data on the use of services for the years 2014–2018 with a corresponding division by the number of provided services. Arithmetic mean values of the number of services used per patient group representative were compared with arithmetic mean values of the percentage of services used in corresponding groups of the general population for the years 2014–2018. The above-mentioned mean arithmetic values were compared with demographical projections in corresponding

age groups, resulting in a projection of demand for outpatient physiotherapy services for the years 2019–2030, expressed as their number.

The projection of demand presents a case scenario based on a population weighted by the changing age structure, extrapolation of the previous use of outpatient physiotherapy services, and does not take into account potential changes related to the development of physiotherapy techniques. In the absence of changes in systemic regulations, the level of actual performance and the possible impact on waiting times for services will be conditioned by the size of the budget allocated to secure this area of services.

The results of the analyses are presented graphically for 2018–2030, starting in 2018 (it was the last year for which complete National Health Fund reporting data were available). To present the results synthetically, the groups of people aged 0–59 and ≥ 60 and the results for the entire population were distinguished. In 2018–2030, the number of people in Poland in general and in the 0–59 age group will decrease (by 0.7 and 1.9 million by 2030, respectively), while the number of people aged ≥ 60 will increase to 10.8 million in 2030 (by approx. 1.2 million), and this group is a significant beneficiary of outpatient physiotherapy This will translate into an increase in demand for services in total from 128 million in 2018 to 138.6 million in 2030, i.e. by 8.3%, and, in particular, for people ≥ 60 in the same period of time from 72.3 million to 79.6 million, i.e. by 10.2% (Figure 1).



*Source: Elaboration by the Agency for Health Technology Assessment and Tariff System based on data from the National Health Fund and Statistics Poland, from 2019 AOTMiT forecast of the number of services, *relative values*

Fig. 1. Number of outpatient physiotherapy services provided by age group in 2018–2030*

In the same period (2018–2030), there will be a significant decrease of 1.4 million in the number of economically active persons, i.e. those aged 20–59 (from 20.9 to 19.5 million), which may affect the possibility of an adequate increase in outlays for services due to the reduced impact from health insurance premiums.

Directions for outpatient physiotherapy reorganisation

Considering the results of the analysis of the need for outpatient physiotherapy services in the 2030 perspective, it is imperative to take into account the specificity of the elderly patients characterised by chronic diseases and long-term therapy when planning new system solutions.

The need to ensure the efficiency of physiotherapy care in the light of the ageing society is also recognised by other countries [11]. Norway, the UK, Germany and Canada are looking for new organisational and legal solutions and methods of financing physiotherapy services. The guiding principle of these changes is to ensure universal access to a physiotherapist as part of primary healthcare. In the UK and Canada [12], physiotherapy care provided in collaboration between a physiotherapist and a primary care physician is publicly funded in full [13], whereas, in Germany and Norway, the patient is obliged to pay for certain physiotherapy services.

This involves the physiotherapist working together with other professionals as part of a holistic care approach, e.g. a nurse, occupational therapist and other medical professionals. In the context of care, the physiotherapist focuses on modifiable lifestyle factors (including through physioprophylaxis – Canada) [14]. The service is mostly provided based on a referral from a primary care physician, but usually, the physiotherapist manages the therapeutic process on their own. Physiotherapists have a broad spectrum of qualifications to provide treatment, from providing it according to doctor's orders to having a lot of autonomy in planning the treatment and diagnostics (possibility of referring for diagnostic procedures or medical consultations – the UK). This fact results from the organisational solutions adopted in a given country and the level of competence and experience of the physiotherapist.

In Canada, the physiotherapist is a member of a multidisciplinary team at the primary care level. He is responsible for the health promotion and disease prevention in the population under his care. The physiotherapist assesses, diagnoses and treats patients with a variety of clinical/functional conditions, including providing individualised exercise programmes, implementing prevention, including patient education. In the UK, the principle of initial triage (selection) of patients according to their medical condition is now being introduced. Depending on the condition, the patient is referred to a primary care physician or directly to a physiotherapist under the PHC. The physiotherapist – with a direct access – mainly cares for the group of patients with musculoskeletal conditions. In addition, physical therapists often work in a multidisciplinary team. The main tasks undertaken by a physiotherapist include examination, exercise instruction or education. The approach to the organisation of

physiotherapy care in Norway and Germany is not closely linked to primary healthcare. The systemic solutions in these countries concern funding. Norway, like Germany, uses a patient co-payment system, i.e. part of the cost is borne by the insurer and part by the patients. In the case of Germany, only the services included in the clinical guidelines are reimbursed and listed in the catalogue of reimbursable therapies (published by the G-BA) [9, 15].

In Poland, solutions combining physiotherapy with primary health care are tested using the pilot programme POZ PLUS. The physiotherapy module in this programme is implemented in terms of, among others, disease management such as osteoarthritis and spinal pain syndromes. Currently, these are the disease entities with which most patients visit their outpatient physiotherapist. Patient's qualification to a disease management programme takes place during the initial consultation with a primary care doctor and it may be preceded by diagnostic testing. The rehabilitation services funded under the disease management programme include: consultation by a physician and a physiotherapist and treatments. The services are funded on a lump sum basis (for care covered by the programme) and on a fee-for-service basis (for physiotherapy). The so-called diagnostic pathways for rehabilitation of spinal pain syndromes and peripheral arthritis have been developed. These documents comprehensively describe patient management, from diagnosis to physiotherapy [9].

An important element affecting optimal physiotherapy care is the physiotherapy instrumentation, which includes, among others, the examination of the patient's functional status, performance of treatments, prevention, or education. The foreign scientific societies' guidelines concerning conditions that most frequently occur in outpatient physiotherapy of ≥ 60 patients in Poland, i.e. osteoarthritis, lower back pain, primarily recommend the use of kinesiotherapy methods and sometimes selected modes of physiotherapy. Strong recommendations concern on kinesiotherapy interventions, i.e. joint exercises, muscle-strengthening exercises and weight loss exercises according to individualised training programmes. In physiotherapy, selected treatments such as heat therapy and TENS are conditionally allowed. The following treatments are not recommended: cold therapy, electrotherapy (interference currents), laser therapy, ultrasound therapy, shockwave therapy and kinesiotaping [16, 17, 18, 19]. The catalogue of physiotherapy services provided in Poland includes most of the services indicated in the guidelines. However, the structure of physiotherapy services provided in Poland differed from international recommendations [8]. Another difference between the national NHF-funded services and international guidelines is the fact that the latter use therapy elements such as disease self-management, education and instruction, tailored to the patient's needs and abilities. In Poland, such interventions are not included in the catalogue of guaranteed treatments indicated by the Minister of Health, hence they are not financed by the NHF.

The changes proposed by the system stakeholders are related to the evolution of the current rules of outpatient physiotherapy towards: (1) increasing the competence of physiotherapists to manage the therapy process by waiving

physiotherapy referrals, (2) moving away from paying on a fee-for-service basis for each treatment to paying on a lump sum basis for services provided in a unit of time (e.g. within an hour), (3) increasing the applicable service valuation and outpatient physiotherapy expenditures.

Primary physiotherapy care (PPC) concept

In 2017–2019, AOTMiT, commissioned by the Minister of Health, conducted analytical work within the framework of therapeutic rehabilitation financed by the National Health Fund aimed to develop, in cooperation with a group of stakeholders, appropriate solutions to increase access to these services and change medical technologies within the scope. As a result, a report was published on the concept of changes in the organisation and provision of rehabilitation services along with a proposal to separate Primary Physiotherapy Care, as well as five analytical reports on changes in medical technologies in the field of therapeutic rehabilitation. All of the abovementioned reports were approved by the Transparency Council [20], receiving the recommendation of the President of AOTMiT, and submitted to the Minister of Health.

The concept of Primary Care Physiotherapy is one of the possible responses to the increased demand for physiotherapy. The proposed changes involve an additional, primary level of care in rehabilitation. The PPC assumes a shift from a referral, visit and end of process model of providing services to a patient-centred model of physiotherapy care focusing on the patient and their long-term needs. This model of care would also aim to develop changes in patients' lifestyles and health attitudes [9, 22].

The mission of PPC is to: (1) to strive to improve and maintain human motor and functional performance through a paradigm shift in patient approach – from providing services to taking care of the patient and preventing health loss, (2) to increase accessibility to health services provided by physical therapists. According to the assumptions, the PPC is a basic part of the healthcare system in the area of therapeutic rehabilitation, which is in line with the primary healthcare in terms of organisation and financing and is addressed to all patients registered in a given PHC facility. In the proposed PPC scheme, the physiotherapist independently and autonomously plans and provides healthcare services in the scope of patients' functional disorders. This approach necessitates the inclusion of previously unused and unfunded elements of the therapy process, such as education, instruction, teaching self-care and physioprophylaxis. Additionally, physiotherapy interventions (using kinesiotherapy, physiotherapy and massage) were aggregated into two treatment groups differentiated by the physiotherapist's involvement. These are individual physiotherapy (one physiotherapist and one patient) and functional medical training (possible one physiotherapist and several patients ratio). This division is based on the guidelines of the Polish Council of Physiotherapists [21].

By analogy with the PHC, the PPC indicates a capitation funding mechanism for patient physiotherapy care and fee-for-service for selected services (medical consultations or diagnostics).

The PPC objectives include: (1) reducing the burden of disease and preventing disability, (
2) managing appointments and coordinating cooperation with the primary care and other physicians, (3) supporting the patient's lifestyle changes, (4) supporting self-care, (5) ensuring continuity of physiotherapy care (Table 4).

Table 4. PPC specific objectives

PPC objectives	Implementation method
Reducing the burden of disease and preventing disability	• fall prevention, • physioprophylaxis • back pain treatment, • treatment of chronic diseases and degenerative joint changes, • emergency treatment of injuries and other problems of soft tissues, tendons, muscles, sprains, strains, overloads, sports injuries,
Reducing the burden of disease and preventing disability	• achieving the best possible therapeutic management through: ◦ physiotherapy visits or individual physiotherapy or functional medical training, ◦ medical consultations, ◦ diagnostics; • ensuring patient safety, • ensuring high accessibility to services (unlimited services),
Supporting the patient's lifestyle changes	• promoting healthy behaviour, • education and health promotion regarding the reduction of risk factors leading to dysfunctions, • raising awareness of the role and responsibility of the patient for his or her own health
Supporting self-care	• providing knowledge on how to cope with problems and dysfunctions of the musculoskeletal system of different origin,
Ensuring continuity of physiotherapy care	• in an outpatient setting as close as possible to the patient's home.

Source: AOTMiT's own elaboration

The evolution of the concept of PPC (since the publication of the first proposal of solutions in the AOTMiT's analytical report) [22] allowed to define paths and patterns of patient flow and the way of financing services for patients eligible for PPC. Two PPC models were proposed, which are differentiated by the party concluding a contract with the payer and the party coordinating PPC.
The fixed components of both models are:
1) patients who must make a declaration to given primary care physician:

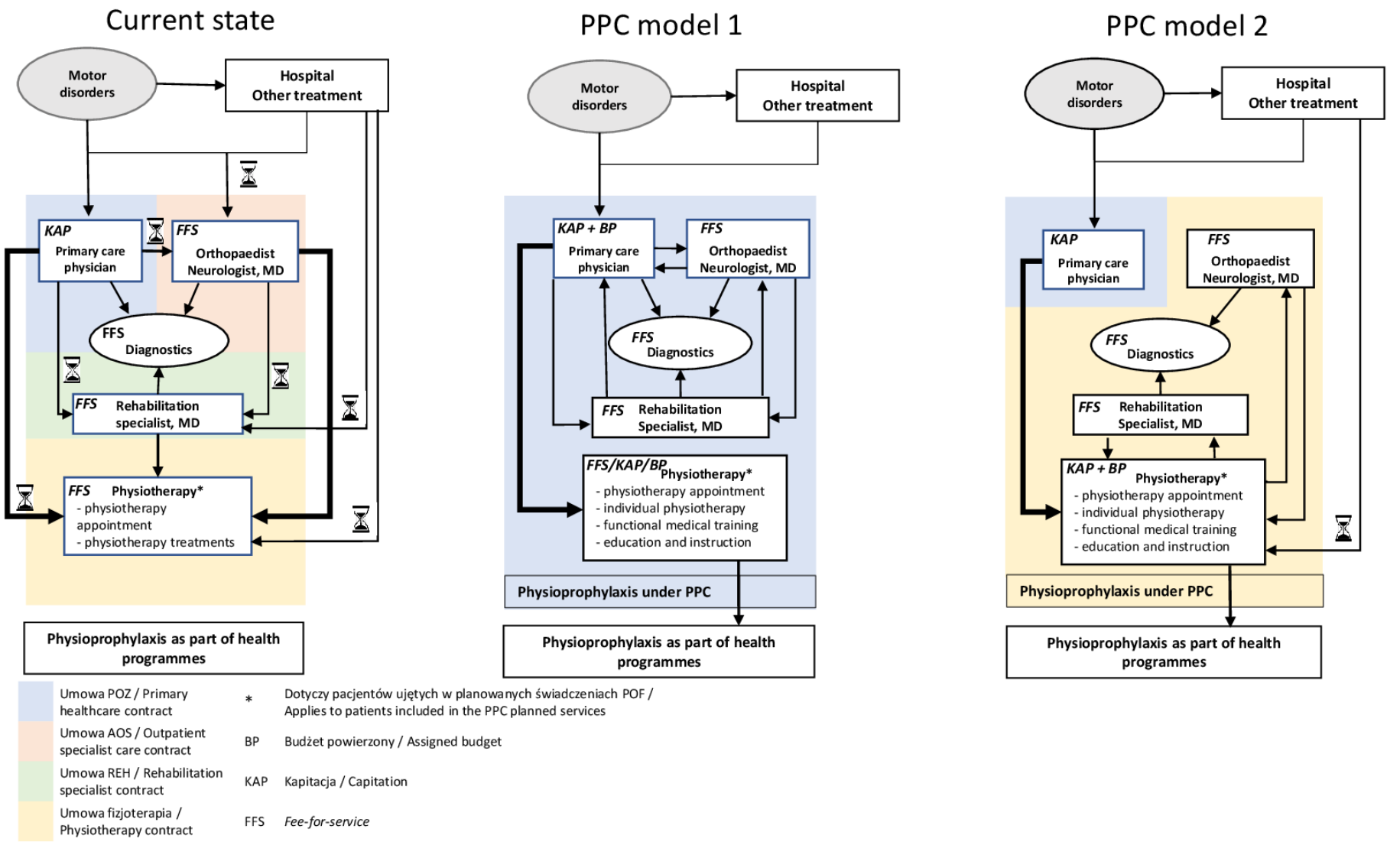


Figure 2. Organisational models of primary physiotherapy care

• in the PPC 1 model – the primary care physician arranges physiotherapy for their patients – either in-house or subcontracted,
• in the PPC 2 model – the physiotherapist independent of the PHC concludes a contract with the primary care physician to provide care for the patients;
2) a provider who is party concluding a contract with the payer and manages the budget:
• in the PPC 1 model – PHC,
• in the PPC 2 model – a physiotherapist;
3) medical consultations: PPC 1, PPC 2 – at least two specialist physicians shall be provided in PPC subcontracting;
4) diagnostics: PPC 1, PPC 2 – access to imaging and laboratory tests is provided in PPC subcontracting. (Figure 2) [22].

Discussion

The analysis of the organisational and legal aspects and the possible ways of financing physiotherapy services made it possible to determine the rules that govern it at present. Currently, the patient waits an average of 114 days for therapy which is carried out during 10 treatment days for 2 weeks. The main treatments are physiotherapy, the therapeutic effects of treatment are not reported, and there are no billing procedures related to education and instruction. The structure and form of therapy in Poland does not fully coincide with international clinical practice guidelines.
The situation of outpatient physiotherapy today indicates that maintaining the availability of services even at the present level in the next decade, in the perspective of the forecasted increase in the number of patients, without taking adequate reorganisation actions in this respect, will force an increase in financial expenditures and providers' resources. The evolution of systemic solutions in this area should be aimed at: (1) increasing the availability of services; (2) better therapeutic effect with improved efficiency in the use of the resources involved (individual approach determined by the needs and condition of the patient, use of techniques and therapies according to clinical guidelines). The projected change in the demographic structure of the Polish population, and hence the probable increase in demand for outpatient physiotherapy, as well as the diagnosed phenomena currently occurring in this scope of services, should therefore be a factor justifying urgent system changes.
The results of the analysis of the conditions of physiotherapy care presented here have helped to propose an organisational framework for a new solution, which is Primary Physiotherapy Care. The concept of PPC is presented as a potential answer to the current and upcoming challenges in ensuring the availability and effectiveness of physiotherapy care. The characteristics of the current state of outpatient physiotherapy have also made it possible to identify the leading group of future PPC beneficiaries. These are predominantly elderly individuals (burdened with, e.g. osteoarthritis, back pain etc.) and patients with urgent conditions requiring quick, emergency access to physiotherapy.
Organisational solutions in other countries demonstrate that the proposals outlined in the study are already being implemented. Most international solutions concerning the organisation of services and the concept of PPC suggest

transferring outpatient physiotherapy to the primary healthcare level. The physiotherapist is an essential coordination and management link in the patient therapeutic process. Implementation of the PPC in the Polish healthcare system will require adapting the package of guaranteed therapeutic rehabilitation services and formal and legal changes in the scope of physiotherapist activity.

The range of analyses presented in this study, together with their key results, is both a methodological contribution to the body of literature (expanding the set of research methods and data sources used in the design of systemic solutions for therapeutic rehabilitation) and a thoroughly prepared proposal for practical application in the Polish healthcare system.

Conclusions

This paper demonstrates that systemic changes in physiotherapy are being tested and implemented in both European (UK, Norway, Germany) and non-European (Canada) countries. The overriding reason for introducing modifications are the projected demographic changes. The solutions mainly concern the reorganisation of the provision of services and the way they are financed. Detailed methods vary in each healthcare system, but the common part is: firstly, improving the professional competence of physiotherapists and strengthening their role in the treatment process; secondly, adopting specific financing mechanisms.

The results of the original prognosis of the demand for outpatient physiotherapy services in Poland for the next decade confirm the need for reorganisation changes in it. The possible direction of physiotherapy provision evolution, outlined in this paper, considers different perspectives: patient's, provider's and payer's (Table 5).

Table 5. Directions for change in outpatient physiotherapy from the perspective of various stakeholder groups

Perspectives of various stakeholders	Directions for change in outpatient physiotherapy (OP)
Patient perspective	• individualisation and adaption of the therapy process to the patient's condition (increasing the share of individual therapy services), • shift from providing services to comprehensive care (including raising patients' awareness of their shared responsibility for the effects of therapy and maintaining fitness), • improvement of access to OP services through cooperation between physiotherapists and primary care physicians,
Provider perspective	• necessity to adapt human resources and premises to an increased patient population and to the structure of treatments according to clinical guidelines, • increase in the independence and autonomy of physiotherapists as therapy managers, • focus on achieving a therapeutic effect rather than carrying out predetermined procedures, • broaden the scope of services by using new forms of therapy: education, instruction, teaching self-care at home,

Perspektywy różnych interesariuszy Perspectives of various stakeholders	Kierunki zmian w fizjoterapii ambulatoryjnej (FA) Directions for change in outpatient physiotherapy (OP)
Payer perspective	• moving away from fee-for-service payment for individual treatments towards payment for therapy/care, • introduction of indicators to adjust the amount of funding according to measurable therapeutic effects.

Źródło: Opracowanie własne AOTMiT
Source: AOTMiT's own elaboration

Introducing Primary Physiotherapy Care (PPC) in the Polish healthcare system can contribute to the optimisation of physiotherapy needs. The review of analogous solutions implemented in other countries and the opinions of national experts (cooperating with AOTMiT) confirm this assumption. The outlined PPC organisational models appear to account for the consequences of the predicted demographic changes in a way that is adjusted to the Polish conditions.

Adres do korespondencji / Corresponding author

Dominik Dziurda (AOTMiT)

e-mail: d.dziurda@aotmit.gov.pl

Piśmiennictwo/ References

1. Dostępność i finansowanie rehabilitacji leczniczej. Najwyższa Izba Kontroli. 2014 Wrz; ref.: KZD-4101-04/2013.
2. Ustawa z dnia 27 sierpnia 2004 r. o świadczeniach opieki zdrowotnej finansowanych ze środków publicznych (t.j. Dz.U. z 2020 r. poz. 1398 z późn. zm.).
3. Rozporządzenie Ministra Zdrowia z dnia 13 grudnia 2018 r. zmieniające rozporządzenie w sprawie świadczeń gwarantowanych z zakresu rehabilitacji leczniczej (Dz.U. poz. 2396).
4. Zarządzenie Nr 13/2019/DSOZ Prezesa Narodowego Funduszu Zdrowia z dnia 6 lutego 2019 r. w sprawie określenia warunków zawierania i realizacji umów w rodzajach rehabilitacja lecznicza oraz programy zdrowotne w zakresie świadczeń – leczenie dzieci i dorosłych ze śpiączką.
5. Zarządzenie Nr 53/2018/DSOZ Prezesa Narodowego Funduszu Zdrowia z dnia 22 czerwca 2018 r. zmieniające zarządzenie w sprawie określenia warunków zawierania i realizacji umów w rodzajach rehabilitacja lecznicza oraz programy zdrowotne w zakresie świadczeń – leczenie dzieci i dorosłych ze śpiączką.
6. Badanie potrzeb osób niepełnosprawnych. Państwowy Fundusz Rehabilitacji Osób Niepełnosprawnych PFRON. Raport końcowy. 2017.

7. Zarządzenie Nr 75/2019/DSOZ Prezesa Narodowego Funduszu Zdrowia z dnia 27 czerwca 2019 r. zmieniające zarządzenie w sprawie określenia warunków zawierania i realizacji umów w rodzajach rehabilitacja lecznicza oraz programy zdrowotne w zakresie świadczeń – leczenie dzieci i dorosłych ze śpiączką.
8. Rehabilitacja lecznicza finansowana ze środków Narodowego Funduszu Zdrowia w latach 2016–2017. Załącznik nr 2 do Opracowania analitycznego. Agencja Oceny Technologii Medycznych i Taryfikacji AOTMiT. Opracowanie analityczne. 2018; List ref.: AOTMiT-WS.434.1.2016
Dostęp: http://bipold.aotm.gov.pl/index.php/zlecenia-mz-2016/837-materialy-2016/4802-215-2016-zlc
9. Koncepcja zmian organizacji i funkcjonowania rehabilitacji leczniczej w systemie ochrony zdrowia w Polsce. Agencja Oceny Technologii Medycznych i Taryfikacji AOTMiT. Opracowanie analityczne. 2018 List; ref.: AOTMiT-WS.434.1.2016
Dostęp: http://bipold.aotm.gov.pl/index.php/zlecenia-mz-2016/837-materialy-2016/4802-215-2016-zlc
10. Prognoza ludności rezydującej dla Polski na lata 2015–2050. Główny Urząd Statystyczny. Warszawa. 2020.
Dostęp:https://stat.gov.pl/obszary-tematyczne/ludnosc/prognoza-ludnosci/prognoza-ludnosci-rezydujacej-dla-polski-na-lata-2015-2050,8,1.html
11. Ageing Europe — Looking at the lives of older people in the EU - 2020 edition. EUROSTAT. Luxembourg, Publications Office of the European Union. 2020
Dostęp: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Ageing_Europe_-_looking_at_the_lives_of_older_people_in_the_EU
12. Physiotherapy in Primary Health Care. Ontario Physiotherapy Association. 2017.
13. Musculoskeletal First Contact Practitioner Services. Implementation guide, NHS Health Education England. 2019.
14. The Role of Physiotherapy in Canada, Contributing to a Stronger Health Care System. The Conference Board of Canada. Report. 2017.
15. Richtlinie. Des Gemeinsamen Bundesausschusses Richtlinie über die Verordnung von Heilmitteln in der vertragsärztlichen Versorgung, G-BA. 2020 Marz.
Dostęp: https://www.g-ba.de/downloads/62-492-2100/HeilM-RL_2020-03-27_iK-2020-03-09.pdf.
16. Guideline for the management of knee and hip osteoarthritis. 2nd edition. The Royal Australian College of General Practitioners. East Melbourne; Vic: RACGP. 2018.
17. Quaseem A, Wilt TJ, McLean RM, et al. Noninvasive Treatments for Acute, Subacute and Chronic Low Back Pain: A Clinical Practice Guideline From the American College of Physicians. Ann Intern Med. 2017.
18. Van Wambeke P, Desomer A, Ailliet L, et al. Low back pain and radicular pain: assessment and management. Good Clinical Practice (GCP) Brussels. Belgian Health Care Knowledge Centre (KCE). 2017. KCE Reports 287. D/2017/10.273/36.
19. Low back pain and sciatica in over 16s: assessment and management. NICE Guidelines. NICE. 2016.
20. Opinia Rady Przejrzystości nr 362/2018 z dnia 20 grudnia 2018 r. w sprawie oceny koncepcji zmian organizacji i funkcjonowania rehabilitacji leczniczej w systemie ochrony zdrowia w Polsce.
Dostęp:
http://bipold.aotm.gov.pl/index.php/zlecenia-mz-2016/837-materialy-2016/4802-215-2016-zlc
http://bipold.aotm.gov.pl/index.php/zlecenia-mz-2018/883-materialy-2018/5537-92-2018-zlc
21. Wytyczne Krajowej Rady Fizjoterapeutów do udzielania świadczeń zdrowotnych z zakresu fizjoterapii i ich opisywania w dokumentacji medycznej. Uchwała nr 142/I KRF Krajowej Rady Fizjoterapeutów z dnia 1 marca 2018 r. Warszawa. 2018.
22. Zmiany organizacji w zakresie fizjoterapii ambulatoryjnej. Opracowanie analityczne. Agencja Oceny Technologii Medycznych i Taryfikacji AOTMiT. Opracowanie analityczne. 2018 List; ref.: AOTMiT-WS.434.1.2016
Dostęp: http://bipold.aotm.gov.pl/assets/files/zlecenia_mz/2016/215/RPT/RAPORT_POF.pdf.