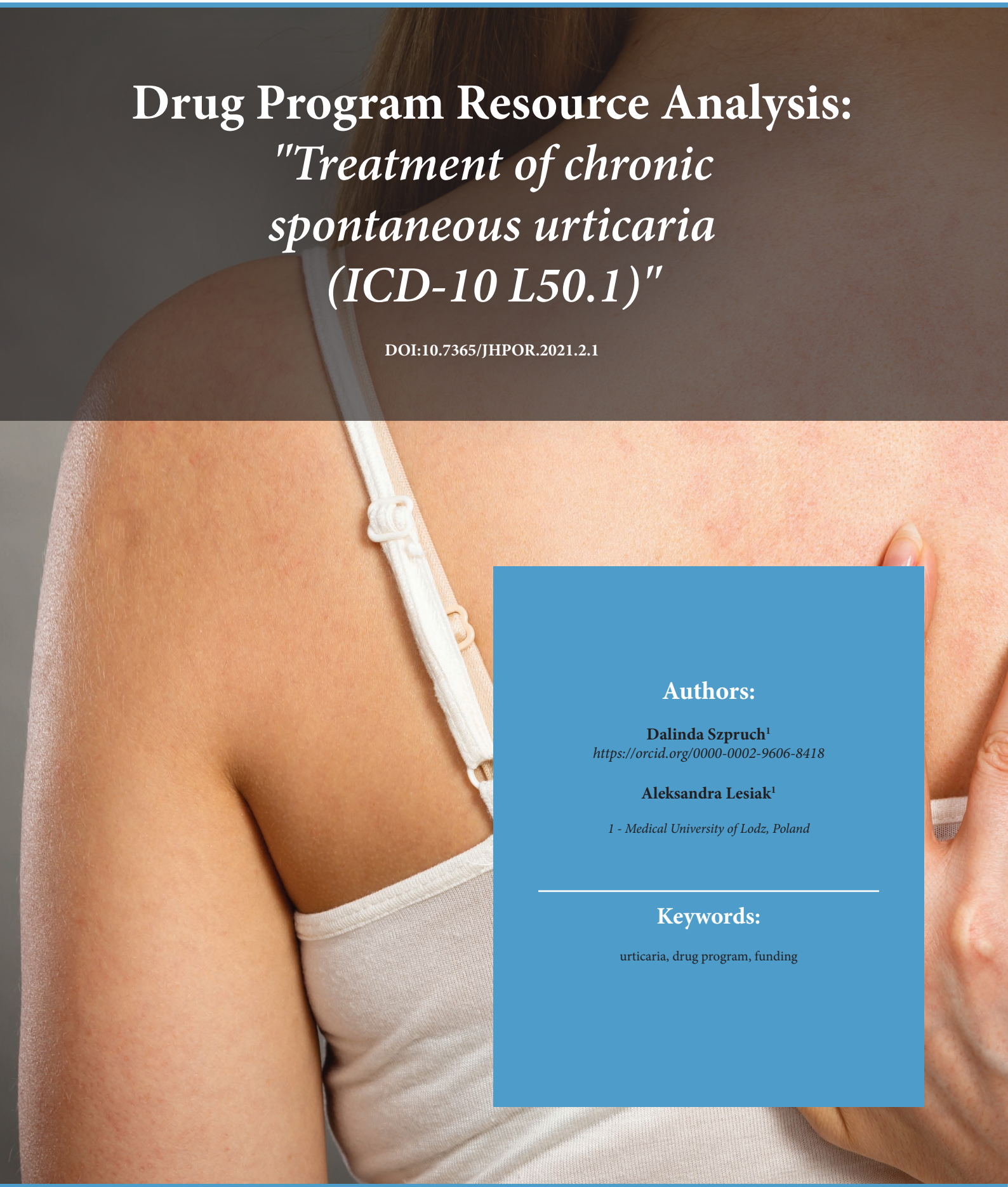
#02/2021
ISSN 2299-1247

JHPOR | Journal of Health Policy & Outcomes Research

Drug Program Resource Analysis: *"Treatment of chronic spontaneous urticaria (ICD-10 L50.1)"*

DOI:10.7365/JHPOR.2021.2.1



Authors:

Dalinda Szpruch[1]
https://orcid.org/0000-0002-9606-8418

Aleksandra Lesiak[1]

1 - Medical University of Lodz, Poland

Keywords:

urticaria, drug program, funding

How to cite this article?
Szpruch D., Lesiak A., Drug Program Resource Analysis: "TREATMENT OF CHRONIC SPONTANEOUS URTICARIA (ICD-10 L50.1)." J Health Policy Outcomes Res [Internet]. 2021 [cited YYYY Mon DD];1. Available from: https://www.jhpor.com/article/2266-drug-program-resource-analysis-treatment-of-chronic-spontaneous-urticaria-icd-10-l501

contributed: 2021-05-26 final review: 2021-06-29 published: 2021-07-13

Corresponding author: Dalinda Szpruch dalinda82@yahoo.fr

Abstract

Introduction Since January 2020 treatment of patients with chronic spontaneous urticaria is possible under drug program B.107: "TREATMENT OF CHRONIC SPONTANEOUS URTICARIA." This is the first drug program designed specifically for this group of patients. The reimbursement process was long and lasted nearly 5 years from the time the marketing authorization holder had submitted the reimbursement application. The aim of this paper is to summarize the first year of the implementation of program B.107.
Methods

The statistical analysis was based on the data published by the National Health Fund (NFZ) Board in the NFZ Operations Report for Q4 2020.

Results 225 patients were treated under drug program B.107 in 2020. The NFZ assigned the following amounts of money for the provision of healthcare services under this program: PLN 2,936,812 — for the medicines and PLN 452,512 — for the management of the program. The use of the aforementioned amounts was 86% for the drug in the program and 63% for the management of the program. The treatment has been carried out by 46 centers across Poland.

Conclusions There was a strong unmet medical need indicating the necessity to provide treatment for this group of patients. A large group of medical specialists can diagnose and treat urticaria in line with Polish and international recommendations. Since this drug program includes numerous medical specialties, patients with urticaria have gained very good access to diagnostics and potential initiation of treatment within its framework. In addition, omalizumab can be dispensed to patients for use at home, which definitely increases the safety of the therapy by limiting direct contact between the patient and medical facilities.

As defined by EAACI/GA(2)LEN/EDF/WAO (European Academy of Allergy and Clinical Immunology, Global Allergy and Asthma European Network, European Dermatology Forum, World Allergy Organization) in 2013, urticaria is a disease characterized by the presence of wheals and/or angioedema. When symptoms persist for at least 6 weeks, the condition is referred to as chronic urticaria (CU), which in turn can be divided into idiopathic and induced depending on the causative agent.[1]

The announcement of the Minister of Health of 20 December 2019 on the list of reimbursed medicines, foodstuffs intended for particular nutritional uses and medical devices as of 1 January 2020, included the possibility to treat patients with chronic spontaneous urticaria under drug program B.107: "TREATMENT OF CHRONIC SPONTANEOUS URTICARIA."[2]

The drug program is a guaranteed healthcare benefit which involves the use of innovative, costly active substances that are not financed under other guaranteed benefits.[3]

The treatment is carried out in allergology, dermatology, pulmonology and pediatric centers participating in the program.[4]

Patients qualified for the drug program are treated free of charge and the enrollment decision is made by a physician at a facility which has concluded a relevant contract.

Introduction

Chronic urticaria (CU) is a serious disease with complex etiopathogenesis which affects about 0.1–3% of the population. The clinical picture of urticaria consists of urticarial wheals and/or angioedema and pruritus. In severe cases, massive oedema, including swelling of the throat, may be life-threatening. Chronic spontaneous urticaria (CSU) accounts for 2/3 of all CU cases and occurs most frequently in adult women (approximately 20–40 years of age).[5] CSU presents major diagnostic and therapeutic challenges. Due to the severity of the complaints, this condition significantly impairs the patient's everyday life as well as reduces their quality of sleep and life.[6]

Currently, 2018 EAACI/GA(2) LEN/EDF/WAO recommendations indicate the use of monotherapy with approved doses of the 2nd-generation non-sedative H1-antihistamines as first-line treatment. The second line of treatment consists in increasing the dose of 2nd-generation non-sedative H1-antihistamines up to four times if no improvement is seen within 2–4 weeks of follow-up. In the third line of treatment, in accordance with the current 2018 recommendations, the use of omalizumab is recommended as add-on treatment. This is a change from the previous recommendation which advocated that cyc-

losporine or montelukast or omalizumab could be used in the third line of treatment.1 The authors of the current recommendations clearly indicate that only omalizumab has been approved for use in the CSU indication and shows clinically proven efficacy. Other medicines proved ineffective in real-world setting or their use is associated with a significant risk of serious side effects. Therefore, since 2018, omalizumab has been the only recommended and approved in the European Union option for CSU patients unresponsive to antihistamines.

Material and methods

The analysis included the 2020 data published by the NFZ's Board in the NFZ Operations Report for Q4 2020 with regard to the drug program B.107: "TREATMENT OF CHRONIC SPONTANEOUS URTICARIA."[7]

The following parameters were analyzed:

- the number of settled settlement units divided in particular scopes of hospital treatment (drug program) for B.107
- the number of patients enrolled in the drug program
- the value of program contracts
- the number of healthcare providers conducting the program
- the number of patients to whom the drug was dispensed for self-administered injections
- the number of patients on the waiting list.

Results

(Table 1) In 2020, which was the first year of implementation of the B.107 drug program, the following operations were carried out:

- 450 one-day hospitalizations related to the implementation of the program for a total of PLN 219,024;
- 340 outpatient admissions related to the program implementation for a total of PLN 36,774.

Table 2. Number of patients – B.107

NFZ Branch	No of patients
dolnośląski	17
kujawsko-pomorski	3
lubelski	11
lubuski	0
łódzki	68
małopolski	13
mazowiecki	45
opolski	11
podkarpacki	2
podlaski	3
pomorski	1
śląski	19
świętokrzyski	10
warmińsko-mazurski	2
wielkopolski	19
zachodniopomorski	2
Total	225

225 patients were treated under drug program B.107 in 2020.

The highest number of patients was treated at the centers in Łódzkie Province.

No center in Lubuskie Province has concluded the contract for the implementation of the B.107 drug program; therefore no treatment was reported in that region in 2020. (Table 3)

In 2020, the NFZ allocated the following amounts to the implementation of the B.107 drug program:

- PLN 2,936,812 – for the medicines,
- PLN 452,512 – for the management of the program.

The use of the aforementioned amounts is 86% for the drug in the program and 63% for the management of the abovementioned program.

(Table 4) In 2020, the B.107 drug program was implemented by 46 healthcare providers for a total of PLN 3,389,323.2

Table 1. Settlement units – drug program B.107

Health benefit code	Name of the benefit	Number of settlement units settled	Number of persons	Costs of benefits [PLN]
5.08.07.0000003	1-DAY HOSPITALISATION RELATED TO THE IMPLEMENTATION OF THE PROGRAMME	450	124	219,024.00
5.08.07.0000004	OUTPATIENT ADMISSION RELATED TO THE IMPLEMENTATION OF THE PROGRAMME	340	133	36,774.40
5.08.08.0000135	DIAGNOSTICS IN THE CHRONIC SPONTANEOUS URTICARIA TREATMENT PROGRAMME	75	202	28,266.56
5.08.0.0000068	OMALIZUMABUM – P – PARENTERAL – 1 MG	271,800.00	225	2,539,044.83
The number of patients in Poland was assumed as the number of patients for whom diagnostic costs were settled.			Total	2,823,109.79

Table 3. The size of B.107 contracts and degree of their implementation (the value of the agreement vs its implementation)			
Name of the benefit	Value [PLN] January 2020 – December 2020	Contracts [PLN] January 2020 – December 2020	Implementation
DRUG PROGRAMME – TREATMENT OF CHRONIC SPONTANEOUS URTICARIA	284,064.96	452,512	63%
MEDICINES IN THE DRUG PROGRAM – TREATMENT OF CHRONIC SPONTANEOUS URTICARIA	2,539,044.83	2,936,812	86%

Table 4. Contract size and number of healthcare providers for B.107				
Province	No of healthcare providers	Drug contract value	Management contract value	Total
Dolnośląskie	4	PLN 191,497.0	PLN 22,167.0	PLN 213,664.0
Kujawsko-Pomorskie	3	PLN 21,569.0	PLN 5,891.0	PLN 27,460.0
Lubelskie	4	PLN 159,895.5	PLN 20,580.7	PLN 180,476.2
Łódzkie	5	PLN 896,869.0	PLN 196,490.0	PLN 1,093,359.0
Małopolskie	3	PLN 96,284.0	PLN 8,493.0	PLN 104,777.0
Mazowieckie	4	PLN 645,175.5	PLN 51,241.6	PLN 696,417.1
Opolskie	2	PLN 103,452.0	PLN 23,363.0	PLN 126,815.0
Podkarpackie	3	PLN 15,809.0	PLN 3,678.0	PLN 19,487.0
Podlaskie	1	PLN 30,888.2	PLN 5,018.0	PLN 35,906.2
Pomorskie	4	PLN 57,314.0	PLN 419.0	PLN 57,733.0
Śląskie	6	PLN 227,332.0	PLN 22,911.0	PLN 250,243.0
Świętokrzyskie	2	PLN 137,937.0	PLN 25,371.0	PLN 163,308.0
Warmińsko-Mazurskie	2	PLN 33,874.4	PLN 4,959.4	PLN 38,833.8
Wielkopolskie	1	PLN 284,431.0	PLN 51,559.0	PLN 335,990.0
Zachodniopomorskie	2	PLN 34,484.0	PLN 10,370.0	PLN 44,854.0
Total	46	PLN 2,936,811.5	PLN 452,511.7	PLN 3,389,323.2

Table 5. Number of patients dispensed omalizumab for use at home		
Province	Month	Number of patients dispensed the drug for use at home
Lubelskie	11	2
Mazowieckie	6	4
	7	2
	8	2
	9	5
	10	1
Śląskie	10	1
Świętokrzyskie	10	3
	11	2

Table 6. Waiting time and the number of people waiting - average actual waiting time - based on data on services provided - for the provision of selected healthcare services.									Cumulatively / voivodeship branch of the Fund							
Report of the fourth quater of 2020																
Name of the health-care service	The number of people on the waiting list who have been granted benefit								Number of service providers on whose waiting lists the waiting people were entered							
	total	with the actual waiting time in months amounted to							total	with the actual waiting time in months amounted to						
		Up to 1 month	above 1 to 2	above 2 to 3	above 3 to 6	above 6 to 12	above 12 to 24	> 24		Up to 1 month	above 1 to 2	above 2 to 3	above 3 to 6	above 6 to 12	above 12 to 24	>24
B.107	68	58	19	0	0	0	0	0	2	2	2	0	0	0	0	0

The largest number of healthcare providers implementing the B.107 program was noted in Śląskie Province. None of the sites in Lubuskie Province has concluded the contract for the provision of the above-mentioned benefit.

The highest contract values were noted in Mazowieckie Province, while the lowest – in Wielkopolskie Province.

(Table 5) Omalizumab was dispensed to patients for use at home in only 3 provinces. The procedure of dispensing the medicine for use at home under the B.107 drug program was most common in the Mazowieckie Province. The University Clinical Centre of the Medical University of Warsaw has completed this procedure fourteen times between June and October.

(Table 6) A total of 68 patients awaited the implementation of the benefit under the B.107 programme in 2020. However, waiting time was relatively short — up to 2 months.

Discussion

Chronic spontaneous urticaria (CSU) manifests with cyclic, at least 6-weeks long presence of wheals and/or angioedema, and in contrast to induced urticaria, there is no triggering factor. CSU can be divided into urticaria of unknown causes (chronic idiopathic urticaria, CIU) and urticaria of known origin (infection-related urticaria).3 In approximately one-third of patients with CIU it is suspected that the condition may be associated with autoimmune processes.[8] According to the latest studies in Poland, CSU may account for up to 42% of cases of all chronic urticaria. Less than 50% of patients achieve control of CSU symptoms with the use of antihistamines (AH1). The remaining patients require increased doses of AH1; however, every third or fourth CSU patient is resistant to such a therapy.6 The symptoms of CSU significantly reduce the patient's quality of life and make normal, everyday functioning difficult due to troublesome itching, pain and indirect effect on the patient's emotional well-being.

Xolair, omalizumab, humanized monoclonal anti-IgE antibody has been approved by the EMA and FDA for use in the treatment of adults and adolescents (≥ 12 years of age) with chronic spontaneous urticaria who remain symptomatic despite treatment with anti-H1 antihistamines. The recommended dose for the treatment of CSU, according to the Summary of Product Characteristics, is 300 mg by subcutaneous injection every 4 weeks.[9]
The approval of omalizumab in chronic spontaneous urticaria (CSU) in 2014 was based on efficacy and safety data from Phase III clinical trials [ASTERIA I (NCT01287117), ASTERIA II (NCT01292473) and GLACIAL (NCT01264939)]. These studies showed that omalizumab at a dose of 300 mg significantly improved disease control and significantly reduced pruritus severity (Itch Severity Score, ISS) as compared to placebo.[10] [11] [12] [13]

In 2019, the Minister of Health decided on the reimbursement of omalizumab under the drug program B.107 "Treatment of chronic spontaneous urticaria." This decision was long-awaited by both physicians and patients.
The treatment has been carried out by 46 centers across Poland. There is no healthcare facility providing treatment under this program only in Lubuskie Province. In other provinces the program was implemented by allergology, dermatology and pediatric facilities. As specified in the appendix to the Regulation of the President of the National Health Fund (NFZ) No 162/2020/DGL, the aforementioned program may be implemented by: outpatient clinics and departments of allergology, pediatric allergology, dermatology, pediatric dermatology, pulmonology, pediatric pulmonology, pediatrics and internal diseases.
The dosage specified in the description of the drug program indicates that treatment with omalizumab should be suspended 24 weeks after the initiation of the therapy (administration of the first dose). During the treatment the patient receives 7 doses in weeks: 0, 4, 8, 12, 16, 20, 24. The patient should not discontinue the treatment with an antihistamine. During the period when the patient's participation in the drug program is suspended, the use of antihistamines remains at the discretion of the physician. In patients who restart treatment with omalizumab, therapy should be continued at the dose specified in the Summary of Product Characteristics for a period of consecutive 24 weeks, i.e. 300 mg administered subcutaneously every 4 weeks.

In 2020 the treatment was provided to 225 patients. The highest number of treatments is provided by centers in Łódzkie Province. In the majority of cases the healthcare benefit is settled as "hospitalization related to the program" — for a unit amount of PLN 486.72.

The total value allocated for the implementation of B.107 was PLN 3,389,323.2. At the same time, healthcare providers completed the above-mentioned drug program in 86% as regards the drug dispensed in the program and in 63% as regards the program management.

In light of the COVID-19 epidemic in 2020, the President of the National Health Fund (NFZ) decided that omalizumab can be dispensed to patients for use at home. Undoubtedly, it was a step towards increasing the patient's safety by limiting their direct contact with medical facilities. This benefit was provided 23 times in only 3 provinces over 6 months.

In 2020 the number of patients awaiting participation in the B.107 drug program was 68. Waiting time was less than 2 months.

Conclusions

The analysis of the NFZ data shows that there was a strong unmet medical need indicating the necessity to provide treatment for this group of patients. A large group of medical specialists can diagnose and treat urticaria in line with Polish and international recommendations. 225 patients were treated in as many as 46 medical facilities. Since this drug program includes numerous medical specialties, patients with urticaria have gained very good access to diagnostics and potential initiation of treatment within its framework. In addition, the option to dispense omalizumab to patients for use home has increased the safety of their therapy by limiting their direct contact with medical facilities.

Authors disclose no conflict of interest.

References

1. Zuberbier T, Aberer W, Asero R, et al. The EAACI/GA2LEN/EDF/WAO Guideline for the definition, classification, diagnosis, and management of urticaria: The 2013 revision and update. Allergy Eur J Allergy Clin Immunol 2014; 69: 868-87.
2. Obwieszczenie Ministra Zdrowia z dnia 20 grudnia 2019 r. w sprawie wykazu refundowanych leków, środków spożywczych specjalnego przeznaczenia żywieniowego oraz wyrobów medycznych na 1 stycznia 2020 r.
3. Dziennik Ustaw z 2011 r. Nr 122, poz. 696, USTAWA z dnia 12 maja 2011 r. o refundacji leków, środków spożywczych specjalnego przeznaczenia żywieniowego oraz wyrobów medycznych, (Dz. U. z dnia 13 czerwca2011 r.)
4. ZARZĄDZENIE Nr 162/2020/DGL PREZESA NARODOWEGO FUNDUSZU ZDROWIA z dnia 16 października 2020 r. w sprawie określenia warunków zawierania i realizacji umów w rodzaju leczenie szpitalne w zakresie programy lekowe
5. Zuberbier T, et al. The EAACI/GA2LEN/EDF/WAO Guideline for the Definition, Classification, Diagnosis and Management of Urticaria. The 2017 Revision and Update. Allergy. 2018 Jan 15. doi: 10.1111/all.13397
6. Maurer M, Weller K, Bindslev-Jensen C, i in. Unmet clinical needs in chronic spontaneous urticaria. A GA2LEN task force report. Allergy. 2011; 66(3):317–330.
7. Uchwała Nr 5/2021/IV RADY NARODOWEGO FUNDUSZU ZDROWIA z dnia 12 marca 2021 r. w sprawie przyjęcia rocznego sprawozdania z działalności Narodowego Funduszu Zdrowia za 2020 r.
8. Skwara I, Chodorowska G, Krasowska D. Pokrzywka przewlekła – definicja, podział, diagnostyka, leczenie. Medycyna Rodzinna. 2004; 5:205–201.
9. Aktualna Charakterystyka Produktu Leczniczego Xolair: 31/07/2020 Xolair - EMEA/H/C/000606 - II/0093: https://www.ema.europa.eu/en/medicines/human/EPAR/xolair; dostęp z dnia 28.03.2021
10. Saini SS, Bindslev-Jensen C, Maurer M et al. Efficacy and safety of omalizumab in patients with chronic idiopathic/spontaneous urticaria who remain symptomatic on H1-antihistamines: a randomized, placebo-controlled study. J Invest Dermatol 2015; 135: 67–75.
11. Kaplan A, Ledford D, Ashby M et al. Omalizumab in patients with symptomatic chronic idiopathic/spontaneous urticaria despite standard combination therapy. J Allergy Clin Immunol 2013; 132: 101–109.
12. Maurer M, Rosen K, Hsieh HJ et al. Omalizumab for the treatment of chronic idiopathic or spontaneous urticaria. N Engl J Med 2013; 368: 924–935.
13. Maurer M, et al. The XTEND-CIU study: Long-term use of omalizumab in chronic idiopathic urticaria. J Allergy Clin Immunol. 2018 Mar; 141(3):1138-1139.