ANALYSIS OF THE EXPENDITURE OF PHARMACEUTICALS PRESCRIBED FOR THE INDICATION OF FEMALE INFERTILITY IN HUNGARY FOR THE PERIOD 2015-2023

Pónusz-Kovács D[1,2], Sántics-Kajos LF[1,2], Csákvári T[1,2], Pónusz R[1,2], Elmer D[1,2], Várnagy Á[2,3], Bódis J[2,3], Boncz I[1,2]

1 Institute for Health Insurance, Faculty of Health Sciences, University of Pécs, Pécs, Hungary
2 National Laboratory on Human Reproduction, University of Pécs, Pécs, Hungary
4 Department of Obstetrics and Gynecology, University of Pécs, Pécs, Hungary

OBJECTIVES

15-20% of couples worldwide affected by infertility. In the treatment of infertility, both in the promotion of natural conception and in in vitro procedures, drug therapy plays a major role. The level of subsidies for pharmaceuticals has changed significantly in Hungary in recent years, with 100% state subsidies for IVF treatment due to the increase in state involvement in 2020.

METHODS

The turnover data of prescriptions for infertility diagnoses was analyzed. The following WHO ICD (revision X.) infertility diagnoses were included in the study: N97.0; N97.1; N97.2; N97.3; N97.4; N97.8; N97.9. The study analyzed the expenditure of pharmaceuticals associated with different infertility diagnoses. Moreover, the market share linked to pharmaceutical products was also evaluated. The study database was provided by the Health Data Warehouse of the National Hospital General Directorate. The examined period covered 2015-2023 years. The expenditures were set in USD (the mean value of 1 USD during the study period= 301.70 HUF).

RESULTS

The total expenditure for infertility-related pharmaceutical utilization was 114,0 million USD in Hungary between 2015 and 2023 (total OOP: 19,1 million USD; public expenditure: 94,8 million USD). The highest market share was represented by N97.9 ICD. Between 2015-2019, the patient co-payment averaged HUF 2,85 million USD per year, which decreased to 1,22 million USD between 2020-2023 (-42.3%). The highest amount of public foundation benefits per 10,000 inhabitants, calculated on the basis of the county average for the period under review, was in Baranya county (77,8 thousand USD).

CONCLUSIONS

The OOP expenditure has decreased in the study period, especially from 2020. From that year onwards, the government took on a greater role by increasing public subsidies for infertility-related pharmaceuticals. Based on the result, the financial burden of Hungarian patients related to infertility has been relieved.

Year	Out-of pocket expenditures	Public expenditures	Total expenditure	Level of support
2015.	$2.615.566	$4.556.190	**$7.171.756**	63,5%
2016.	$2.925.177	$5.180.436	**$8.105.613**	63,9%
2017.	$3.146.901	$6.309.114	**$9.456.016**	66,7%
2018.	$2.963.948	$8.810.300	**$11.774.248**	74,8%
2019.	$2.611.308	$8.133.771	**$10.745.079**	75,7%
2020.	$1.420.283	$10.867.954	**$12.288.236**	88,4%
2021.	$1.519.592	$14.812.172	**$16.331.764**	90,7%
2022.	$1.011.576	$16.709.228	**$17.720.804**	94,3%
2023.	$976.654	$19.461.179	**$20.437.833**	95,2%
	$19.191.004	**$94.840.345**	**$114.031.349**	

Table 1. Total annual expenditures of infertility-related pharmaceutical utilization in Hungary (NHIFA, 2015-2023)

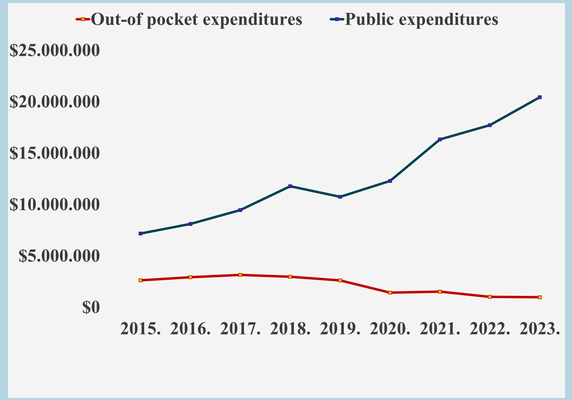

Figure 1. Annual public expenditure and out-of pocket expenditures of infertility-related pharmaceutical utilization in Hungary

ICD code	OOP Total	OOP Distribution (%)	Public expenditures Total	Public expenditures Distribution (%)
N97.0	$ 740.024,04	3,9%	$ 1.900.307,18	2,0%
N97.1	$ 268.646,09	1,4%	$ 1.758.373,12	1,9%
N97.2	$ 7.368,70	0,0%	$ 54.133,95	0,1%
N97.3	$ 3.441,25	0,0%	$ 9.286,24	0,0%
N97.4	$ 597.373,82	3,1%	$ 4.381.852,47	4,6%
N97.8	$ 1.243.918,82	6,5%	$ 9.749.982,47	10,3%
N97.9	$ 16.330.231,06	85,1%	$ 76.986.410,02	81,2%
	$ 19.191.003,78	100%	**$ 94.840.345,45**	100%

Table 2. Out- of pocket and annual public expenditures according to ICD codes (NHIFA, 2015-2023)

Ingredients	ATC code	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total	Distribution (%)
Public expenditures (2015-2023)												
follitropin-alfa	G03GA05	$ 2.628.634	$ 2.813.250	$ 3.014.668	$ 3.782.658	$ 4.578.695	$ 5.463.434	$ 6.574.560	$ 6.950.774	$ 6.484.880	**$ 42.291.554**	**44,6%**
combinations, alfa follitropin/ alfa lutropin	G03GA30 (G03GA51)	$ 1.009.955	$ 1.206.781	$ 1.423.410	$ 2.687.855	$ 612.221	$ 913.800	$ 1.561.592	$ 1.887.460	$ 2.547.274	**$ 13.850.349**	**14,6%**
human menopausal gonadotropin	G03GA02	$ 222.152	$ 783.212	$ 1.135.161	$ 1.782.239	$ 1.050.425	$ 1.041.795	$ 1.420.809	$ 2.112.940	$ 9.548.732	**$ 9.548.732**	**10,1%**
OOP (2015-2023)												
follitropin-alfa	G03GA05	$ 1.224.846	$ 1.339.664	$ 1.280.095	$ 1.110.832	$ 1.170.377	$ 753.141	$ 828.647	$ 352.406	$ 251.717	**$ 8.170.436**	**42,6%**
progeszteron	G03DA04	$ 494.506	$ 482.268	$ 479.181	$ 485.607	$ 466.339	$ 255.637	$ 274.529	$ 235.353	$ 245.945	**$ 3.272.848**	**17,1%**
combinations, alfa follitropin/ alfa lutropin	G03GA30 (G03GA51)	$ 433.988	$ 519.860	$ 479.700	$ 454.785	$ 98.936	$ 48.744	$ 74.054	$ 132.987	$ 130.430	**$ 2.373.484**	**12,4%**
Level of support			70%		90%		100%					

Table 3. The top 3 active ingredients with the highest out-of-pocket costs and public health expenditures in the treatment of female infertility (NHIFA, 2015-2023)

Funding:
Project no. RRF-2.3.1-21-2022-00012, titled National Laboratory on Human Reproduction has been implemented with the support provided by the Recovery and Resilience Facility of the European Union within the framework of Programme Széchenyi Plan Plus."
"This research was supported by the University Research Scholarship Programme (EKÖP-25-4-I-PTE-63) of the Ministry of Culture and Innovation, funded by the National Research, Development and Innovation Fund."

Corresponding author:
Dalma Kovács, MS.c
University of Pécs, Faculty of Health Sciences, Hungary
Institute for Health Insurance
E-mail: dalma.kovacs@etk.pte.hu

ISPOR 2026
May 17-20, 2026 | Philadelphia, PA | USA

HPR53