ANALYSIS OF OUT-OF POCKET PAYMENT ASSOCIATED TO FEMALE INFERTILITY IN HUNGARY BETWEEN 2015-2023

Pónusz-Kovács D [1,2], Pónusz R[1,2], Sántics-Kajos LF[1,2], Csákvári T[2,3], Kovács B[1], Kovács K[2,4], Bódis J[2,4], Boncz I[1,2]

1 Institute for Health Insurance, Faculty of Health Sciences, University of Pécs, Pécs, Hungary1
2 National Laboratory on Human Reproduction, University of Pécs, Pécs, Hungary
3 University of Pécs, Zalaegerszeg, Hungary
4 Department of Obstetrics and Gynecology, University of Pécs, Pécs, Hungary

OBJECTIVES

In Hungary, the number of live births has been decreasing for more than two decades. The government has set a national strategic purpose to increase the accessibility to infertility treatments and relieve the financial burden of affected families. The reform started in 2019, resulting in a significant increase in the state's involvement in providing and financing infertility treatments. This paper evaluates the out-of-pocket (OOP) expenditure related to infertility about pharmaceutical utilization in Hungary.

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 annual OOP 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 OOP expenditure for infertility-related pharmaceutical utilization was 19.19 million USD in Hungary. The highest level was identified in 2017 (3.14 million USD) while the lowest was in 2023 (976,654 USD). A significant difference was captured in the expenditure linked to diagnosis. The highest market share was represented by N97.9 ICD (female infertility, unspecified; 16.33 million USD). Expenditure by active substance had a different outcome. The highest expenditure was associated with follitropin alfa (8.17 million USD) and progesterone (3.27 million 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.

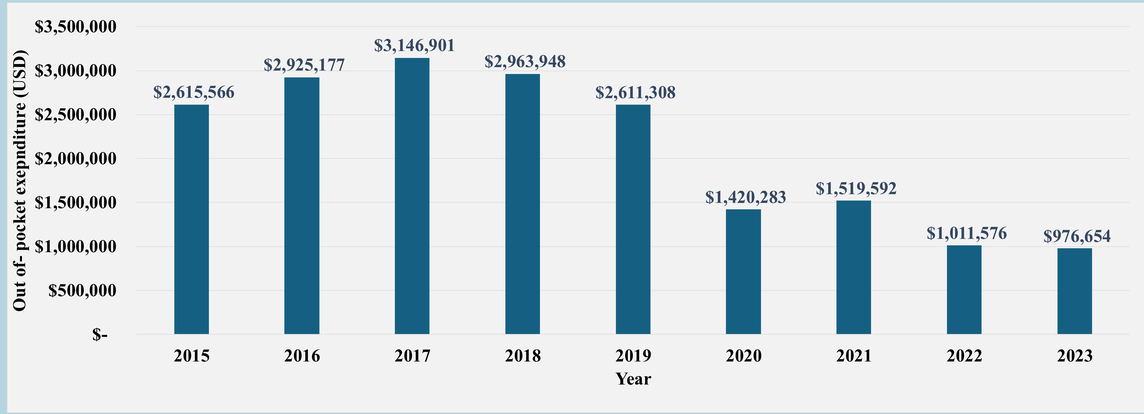

Figure 1. Annual OOP expenditure of infertility-related pharmaceutical utilization in Hungary (NHIFA, 2015-2023)

ICD code	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total	Distribution (%)
N9700	$ 111.828	$ 127.209	$ 149.475	$ 118.609	$ 121.155	$ 34.340	$ 25.271	$ 25.585	$ 26.553	$ 740.024	3,9%
N9710	$ 56.759	$ 45.988	$ 46.234	$ 40.342	$ 35.985	$ 9.976	$ 8.553	$ 11.767	$ 13.040	$ 268.646	1,4%
N9720	$ 296	$ 327	$ 886	$ 623	$ 1.148	$ 1.181	$ 929	$ 1.572	$ 406	$ 7.369	0,0%
N9730	$ 273	$ 322	$ 316	$ 868	$ 807	$ 376	$ 214	$ 120	$ 146	$ 3.441	0,0%
N9740	$ 131.701	$ 114.439	$ 101.200	$ 83.090	$ 80.214	$ 26.588	$ 20.841	$ 18.700	$ 20.602	$ 597.374	3,1%
N9780	$ 172.753	$ 270.491	$ 227.117	$ 193.194	$ 180.118	$ 45.639	$ 53.272	$ 46.618	$ 54.716	$ 1.243.919	6,5%
N9790	$ 2.141.956	$ 2.366.401	$ 2.621.673	$ 2.527.222	$ 2.191.880	$ 1.302.182	$ 1.410.511	$ 907.214	$ 861.192	$ 16.330.231	85,1%
Total	**$ 2.615.566**	**$ 2.925.177**	**$ 3.146.901**	**$ 2.963.948**	**$ 2.611.308**	**$ 1.420.283**	**$ 1.519.592**	**$ 1.011.576**	**$ 976.654**	**$ 19.191.004**	**100,0%**

Table 1. OOP expediture of ICD related to female infertility in Hungary (2015-2023.)

Denomination of the active substance	ATC code	Out of-pocket expenditure ($) 2015	2016	2017	2018	2019	2020	2021	2022	2023	Total	Distribution (%)
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%
progesteron	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%

Table 2. OOP expenditure and denomination of the top 3 active substance (2015-2023)

	Top3 pharmaceuticals GONAL-F	PERGOVERIS	BEMFOLA
OOP	$ 4.455.172	$ 2.376.682	$ 2.369.530
Distribution of total OOP (%)	23,2%	12,4%	12,3%
Denomination of the active substance	follitropin-alfa	combinations,alfa follitropin/ alfa lutropin	follitropin-alfa

Table 3. TOP 3 most expensive medicines to treatment female infertility (2015-2023)

ISPOR 2025
Tuesday, May 13 - Friday, May 16 | Montreal, QC, Canada

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."

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

PÉCSI TUDOMÁNYEGYETEM
UNIVERSITY OF PÉCS

HPR73

SZÉCHENYI 2020
HUNGARIAN GOVERNMENT
European Union
European Social Fund
INVESTING IN YOUR FUTURE