

EVALUATION OF THE COST OF TREATMENT ON ENDOMETRIOSIS IN THE HUNGARIAN PUBLIC-FUNDED HEALTHCARE SYSTEM

Pónusz-Kovács D^{1,2}, Pónusz R^{1,2}, Sántics-Kajos LF^{1,2}, Csákvári T^{2,3}, Kovács B¹, Várnagy Á^{2,4}, Bódis J^{2,4}, 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

3 University of Pécs, Zalaegerszeg, Hungary

4 Department of Obstetrics and Gynecology, University of Pécs, Pécs, Hungary

OBJECTIVES

Endometriosis is one of the most common gynecological diseases that could lead to infertility. The aim of quantitative, descriptive, and cross-sectional study is to analyze the prevalence and the annual nationwide health insurance treatment cost of endometriosis in Hungary in 2010 and 2019.

METHODS

The data used in the research was from publicly funded national real-world datasets administered by the National Health Insurance Administration (NHIFA). The total number of cases of endometriosis in the Hungarian population was determined by WHO ICD codes and by types of the delivered treatment. The annual health insurance expenditure in total and per capita, by age groups and by the type of treatment was evaluated in the year of 2010 and 2019.

RESULTS

In 2010, NHIFA funded the treatment of patients diagnosed with endometriosis with a total of 1,639,613 EUR (1,15 million USD). In 2019, the amount of funding was 16.2% higher, reaching almost 2 million EUR [(1,905,476 EUR) (3,13 million USD)]. The average annual health insurance expenditure per capita was 574 EUR (401 USD) in 2010 and 426 EUR (476 USD) in 2019. The cost of subsidized medications comprised the largest share of expenditure (2010. 48,8%; 2019. 48,2%). By age group, the highest per capita expenditure in 2010 was in the 20–29-year age group (697 EUR, 487 USD), followed by patients aged 30–39 (689 EUR, 484 USD). In 2019, expenditure represented a slightly lower cost compared to 2010 (-25.8%). The highest costs were among the 20–29-year age group, followed by 30–39- and 40–49-year-old patients.

CONCLUSIONS

The number of endometriosis cases is increasing. Early diagnosis and targeted treatment, while reducing endometriosis symptoms, would improve patients' quality of life and reduce health insurance costs. The establishment of endometriosis centers would have a significant impact on effective patient outcomes.

Type of care	Mean age		Number of cases		Health insurance expenditure (EUR)		Distribution of health insurance expenditures (%)		Type of care	Mean age		Health insurance expenditure per patient (EUR)		Mean age vs. health insurance expenditure per patient 2010		Mean age vs. health insurance expenditure per patient 2019		
	2010.	2019.	2010.	2019.	2010.	2019.	2010.	2019.		2010.	2019.	2010.	2019.	r value	p value	r value	p value	
General practitioner care	37,6	38,4	8.029	18.935	85.481	116.835	5,2%	6,1%	General practitioner care	37,6	38,4	24,7	14,3	0,245	0,250	-0,007	0,973	
Home care	--	36,4	--	3	--	433	--	0,0%	Home care	--	36,4	--	216,5	--	--	--	--	--
Patient transportation	75,3	72,8	89	93	1.040	1.748	0,1%	0,1%	Patient transportation	75,3	72,8	29,7	62,4	--	--	0,511	0,018	
Outpatient care	34,9	37,5	12.543	22.516	87.186	119.009	5,3%	6,2%	Outpatient care	34,9	37,5	16,4	11,8	-0,173	0,413	-0,030	0,885	
Care in care centres	35,2	41,0	152	51	1.151	489	0,1%	0,0%	Care in care centres	35,2	41,0	11,2	18,1	--	--	0,945	0,000	
Laboratory diagnostics	35,3	36,6	1.513	3.305	8.716	16.249	0,5%	0,9%	Laboratory diagnostics	35,3	36,6	7,7	7,2	0,853	0,000	-0,503	0,020	
CT, MRI	38,9	38,2	394	1.167	46.087	110.441	2,8%	5,8%	CT, MRI	38,9	38,2	207,6	156,7	-0,307	0,151	0,178	0,401	
Acute inpatient care	34,5	35,8	1.080	1.220	603.116	602.787	36,8%	31,6%	Acute inpatient care	34,5	35,8	563,7	502,7	0,323	0,131	0,405	0,060	
Chronic inpatient care	31,2	36,7	14	23	6.216	18.338	0,4%	1,0%	Chronic inpatient care	31,2	36,7	444,0	797,3	--	-	0,973	0,000	
Subsidized medicaments	37,8	38,8	6.352	11.936	799.412	918.417	48,8%	48,2%	Disposable instruments, implantations and medicaments falling under itemized accounts	--	--	--	--	--	--	--	--	
Subsidized medical aids	53,7	55,6	11	16	1.208	730	0,1%	0,0%	Subsidized medicaments	37,8	38,8	279,9	210,1	-0,272	0,202	-0,356	0,097	
Total	--	--	--	--	1.639.613	1.905.476	100,0%	100,0%	Subsidized medical aids	53,7	55,6	151,0	66,4	--	--	0,011	0,957	

Table 1. Distribution of average age, number of cases and health insurance expenditure by type of care (NHIFA), 2010, 2019)

Table 2. Distribution of average age, number of cases and health insurance expenditure by type of care (NHIFA, 2010, 2019)

Type of care	N80.0		N80.1		N80.2		N80.3		N80.4		N80.8		N80.9		Total	Total	
	2010.	2019.	2010.	2019.	2010.	2019.	2010.	2019.	2010.	2019.	2010.	2019.	2010.	2019.	2010.	2019.	
General practitioner care	13.894 €	14.118 €	19.526 €	20.788 €	1.065 €	1.185 €	4.450 €	3.813 €	745 €	784 €	4.546 €	4.912 €	41.255 €	71.236 €	85.481 €	116.835 €	
Home care	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €	
Patient transportation	528 €	703 €	231 €	116 €	42 €	- €	43 €	- €	- €	- €	29 €	176 €	167 €	754 €	1.040 €	1.748 €	
Outpatient care	10.665 €	8.848 €	15.413 €	16.478 €	425 €	906 €	1.495 €	2.456 €	2.245 €	754 €	4.191 €	3.403 €	52.753 €	86.164 €	87.186 €	119.009 €	
Care in care centres	250 €	124 €	123 €	46 €	- €	- €	- €	- €	- €	- €	5 €	63 €	- €	715 €	314 €	1.151 €	489 €
Laboratory diagnostics	1.380 €	1.532 €	1.184 €	2.013 €	60 €	52 €	104 €	159 €	86 €	30 €	485 €	487 €	5.418 €	11.976 €	8.716 €	16.249 €	
CT, MRI	6.022 €	8.544 €	5.645 €	11.547 €	560 €	468 €	1.848 €	4.319 €	1.084 €	509 €	2.196 €	4.069 €	28.732 €	80.984 €	46.087 €	110.441 €	
Acute inpatient care	34.595 €	48.013 €	330.897 €	289.284 €	4.486 €	5.884 €	32.261 €	25.063 €	6.340 €	924 €	42.267 €	15.422 €	152.270 €	218.196 €	603.116 €	602.787 €	
Chronic inpatient care	4.109 €	- €	638 €	2.373 €	- €	- €	1.327 €	2.475 €	- €	852 €	- €	852 €	143 €	11.786 €	6.216 €	18.338 €	
Subsidized medicaments	88.901 €	22.450 €	55.885 €	66.491 €	1.966 €	798 €	6.303 €	11.317 €	2.577 €	3.625 €	65.921 €	17.796 €	577.860 €	795.940 €	799.412 €	918.417 €	
Subsidized medical aids	638 €	37 €	- €	21 €	- €	- €	- €	- €	394 €	422 €	- €	88 €	176 €	162 €	1.208 €	730 €	
Total	160.981 €	104.368 €	429.541 €	409.157 €	8.603 €	9.293 €	47.830 €	49.602 €	13.471 €	7.906 €	119.697 €	47.205 €	859.489 €	1.277.945 €	1.639.613 €	1.905.476 €	

Table 3. Health insurance expenditure by type of care and ICD codes (NHIFA, 2010, 2019)

