

Online Supplementary Material

Thach A, Kirson N, Zichlin ML, Dieye I, Pappert E, Williams GR. Cost-Effectiveness of Apomorphine Sublingual Film as an “On-Demand” Treatment for “OFF” Episodes in Patients with Parkinson’s Disease. *JHEOR*. 2021;8(2):110-120. [doi:10.36469/jheor.2021.29488](https://doi.org/10.36469/jheor.2021.29488)

Table S1. Mortality Hazard Ratios Based on Age and Disease Stage Incorporated in the Model

Table S2. Treatment-Emergent AEs Reported by $\geq 5\%$ of Patients in Any Comparator, and Related Health-care Use, Unit Cost, and Utility Decrements Incorporated in the Model

Table S3. Medical Costs Incorporated in the Model

REFERENCES

This supplementary material has been provided by the authors to give readers additional information about their work.



Table S1. Mortality Hazard Ratios Based on Age and Disease Stage Incorporated in the Model

Age	Hoehn and Yahr Stage	Hazard Ratio	95% CI
<65 years	1	1.00	–
	2	3.09	1.66, 5.76
	3	2.47	1.17, 5.21
	4	13.83	1.94, 98.84
	5	13.83	1.94, 98.85
≥65 years	1	1.00	–
	2	2.03	1.41, 2.94
	3	2.16	1.43, 3.26
	4	4.99	3.09, 8.05
	5	4.99	3.09, 8.06

Probability of death was calculated from the United States life tables¹ with an adjustment based on the relative risk of death given the patients' age and Parkinson's disease severity, informed by Liou et al.²

Abbreviations: CI, confidence interval.

Table S2. Treatment-Emergent AEs Reported by ≥5% of Patients in Any Comparator, and Related Health-care Use, Unit Cost, and Utility Decrements Incorporated in the Model

AE	Apomorphine Sublingual Film (%)	Apomorphine Hydrochloride Injection (%)	Levodopa Inhalation Powder (%)	Unit Cost (USD)	Utility Decrement
Nausea/Vomiting	27.78	30.00	5.26	\$999	–
Oral mucosal erythema	7.41	–	–	\$87	–
Somnolence	12.96	35.00	–	\$87	–
Dizziness	9.26	20.00	0.88	\$331	0.16
Headache	5.56	–	–	\$0	–
Yawning	3.70	40.00	–	\$0	–
Rhinorrhea	7.41	20.00	–	\$87	–
Fatigue	7.41	–	–	\$87	–
Fall	5.56	–	2.63	\$90	–
Confusion/Hallucination	1.85	10.00	–	\$236	–
Hyperhidrosis	5.56	–	–	\$87	–
Dry mouth	5.56	–	–	\$0	–
Cough	1.85	–	14.91	\$345	–
Laceration	5.56	–	–	\$0	–
Edema ^a	11.11	10.00	–	\$90	–
Injection site reactions	0	45.00	–	\$166	–
Upper respiratory tract infection	–	–	6.14	\$87	–
Chest pain/pressure/angina	0	0.15	–	\$87	0.18

All costs are presented in 2020 USD. AE incidence rates were extracted from CTH-300 study data for apomorphine sublingual film,³ from a CADTH Pharmacoeconomic Report for apomorphine hydrochloride injection,⁴ and from LeWitt et al for levodopa inhalation powder.⁵ AE costs were derived from the CADTH Pharmacoeconomic Report⁴ or assumed to be similar, if missing.

Abbreviations: AE, adverse event; CADTH, Canadian Agency for Drugs and Technologies in Health; USD, United States dollars.

^aEdema in the apomorphine hydrochloride injection pivotal study was related to the extremities, while for the CTH-300 study, it was related to oral events.^{3,6}

Table S3. Medical Costs Incorporated in the Model

	Baseline Units	Units Associated With One Extra “OFF” Hour	Cost per Unit (USD)
Hospitalization, days	0.016	0.004	\$960
Specialist visits, n	0.653	0	\$166
ER visits, n	0.028	0.006	\$973
Informal caregiver, hours ^a	444.222	18.759	\$43

All costs are presented in 2020 USD. Baseline HRU and HRU associated with one extra “OFF” hour were calculated based on data from Adelphi Real World’s Disease Specific Programmes for PD; costs per unit were derived from Palmer et al.⁷ Informal caregiver hours were based on Findley et al,⁸ with the cost per unit derived from the US Bureau of Labor Statistics.⁹

Abbreviations: ER, emergency room; HRU, health-care resource utilization; US, United States; USD, United States dollars.

^a Included in a scenario analysis.

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