

# Out of Pocket Savings On Most Prescribed Medications in Otolaryngology Through Mark Cuban Cost Plus Drugs Company

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## Introduction

- U.S. prescription drug costs are rising. In 2022 they were **\$405.9 billion**, an **8.4% increase from the year prior** [1].
- With increase costs, many patients are unable to comfortably afford their prescriptions with 30% of adults reporting cost-saving strategies which include skipping fills, splitting pills, or using over the counter alternatives [2].
- Medication nonadherence contributes to **\$528.6 billion in excess costs** (16% of U.S. healthcare spending) and **approximately 275,000 deaths annually** [3].
- Mark Cuban Cost Plus Drug Company is a direct-to-consumer pharmacy that aims to make medications more affordable and make costs more predictable. The cost includes the **manufacturing cost with a 15% markup and a fixed pharmacy and shipping fee** [4].
- MCCPDC offers potential savings for uninsured patients with one study citing savings on 75% of medications [5,6].

## Purpose

The purpose of this study is to determine how the out-of-pocket cost of common otolaryngologic drugs compare when using MCCPDC versus purchasing through insurance coverage. We aim to determine where cost savings may be realized and to what degree so that physicians can guide patients when prescribing these drugs.

## Method

### Identification of Medications:

- 2022 Centers for Medicare & Medicaid Services (CMS) Medicare Part D Prescriber dataset filtered for otolaryngology prescribers [7].
- Top 50 medications ranked by total number of claims.

### Medical Expenditure Panel Survey (MEPS):

- National survey collecting data on prescription use, insurance coverage, and expenditures.

### Mark Cuban Cost Plus Drug Company (MCCPDC):

- MCCPDC drug costs were obtained directly from the company's publicly available pricing database, and 30-day and 90-day fill prices were applied where appropriate.

### Analysis:

- For each prescription fill, payer type was assigned based on MEPS reported payment (e.g., Medicare, Medicaid, Private, CHAMPVA, TRICARE, Other Federal, State/Local, Workers' Compensation, or Uninsured if no coverage was indicated).
- Out-of-pocket (OOP) cost per unit was calculated as the amount paid by the patient regardless of coverage type
- Drug forms were classified into pills (tablets/capsules), solutions/suspensions/sprays, or creams/ointments.
  - For pills, MCCPDC costs were compared using 30-day and 90-day fill prices.
  - For solutions and creams, MCCPDC unit costs were applied.
  - Each MEPS OOP per unit cost was standardized to per unit pricing to enable direct comparison with MCCPDC.
- Descriptive statistics were calculated
- Statistical comparisons between MEPS OOP costs and MCCPDC costs were performed using one-sample t-tests or Wilcoxon signed-rank tests where appropriate. Analyses were further stratified by payer type and drug form.

## Data

- Overall, there were 17,095 fills for 32 medications (**Table 1**). 35.7% of prescription fills were for patients without insurance. The majority of fills were for pills (92.7%), then solutions (5.3%) and creams (2%). Levothyroxine was the most filled ENT drug (n=4878).
- Across all prescription fills (n=17,095), MCCPDC prices were significantly higher than out-of-pocket MEPS costs ( $p < 0.001$ ) (**Table 2**). Mean difference (MEPS – MCCPDC) =  $-\$42.14$  (95% CI  $-43.05$  to  $-41.24$ ,  $p < 0.001$ )
- Uninsured patients compared to other coverage type (Medicare, Medicaid, etc.) were most likely to benefit from MCCPDC. Among uninsured patients, 24% of prescriptions filled had lower cost with MCCPDC though average costs remained significantly higher (Mean difference:  $-\$36.9$ ,  $p < 0.001$ ).
- Uninsured patients on solutions (sprays/drops) saved significantly with MCCPDC ( $\sim \$2.60$  per fill,  $p = 0.019$ ) (**Table 3**).
- While overall savings were uncommon (10% of fills), nearly one-quarter of uninsured fills would have been cheaper via MCCPDC.

Drug	Drug Form
BETAMETHASONE-CLOTRIMAZOLE TOPICAL	CREAM
MUPIROCIN TOPICAL	CREAM
AMITRIPTYLINE	PILL
AMOXICILLIN	PILL
AMOXICILLIN-CLAVULANATE	PILL
AZITHROMYCYCIN	PILL
CEPHALEXIN	PILL
CIPROFLOXACIN	PILL
CLINDAMYCIN	PILL
DOXYCYCLINE HYCLATE	PILL
DOXYCYCLINE MONO	PILL
FAMOTIDINE	PILL
FLUCONAZOLE	PILL
HYDROCHLOROTHIAZIDE-TRIAMTERENE	PILL
LEVOCEFTIRIZINE	PILL
LEVOFLOXACIN	PILL
LEVOTHYROXINE	PILL
MECLIZINE	PILL
MONTELUKAST	PILL
NORTRIPTYLINE	PILL
OMEPRAZOLE	PILL
ONDANSETRON	PILL
PANTOPRAZOLE	PILL
PREDNISONE	PILL
SULFAMETHOXAZOLE-TRIMETHOPRIM	PILL
AZELASTINE	SOLUTION
CHLORHEXIDINE TOPICAL	SOLUTION
CIPROFLOXACIN-DEXAMETHASONE OTIC	SOLUTION
FLUTICASONE NASAL	SOLUTION
HYDROCORTISONE/NEOMYCIN/POLYMYXIN B OTIC	SOLUTION
IPRATROPIUM NASAL	SOLUTION
OFLOXACIN	SOLUTION

**Table 1.** List of all included medications prescribed by otolaryngologists that were available through MCCPDC and MEPS.

Payer Type	Prescription Fills (n)	Percentage Saved	Mean per unit cost for MEPS	Mean per unit cost for MCCPDC	Mean Difference MEPS – MCCPDC	p value
Uninsured	5942	23.53	0.31	0.89	-0.58	<0.001
Medicare	5713	2.47	0.05	0.84	-0.79	<0.001
Medicaid	2582	0.00	0.01	0.75	-0.74	<0.001
Private	1868	5.62	0.11	0.84	-0.72	<0.001
CHAMPVA	252	10.32	0.14	0.52	-0.38	<0.001
Tricare	158	1.90	0.05	1.06	-1.02	<0.001
Other						
Federal	97	0.00	0.00	1.02	-1.02	<0.001
State/Local	33	0.00	0.00	0.71	-0.71	<0.001

**Table 2.** Comparisons of mean out of pocket costs per unit (\$) for MEPS and MCCPDC. For all payer types, patients on average spent more when they used MCCPDC compared to MEPS.

Drug	Number of fills (n)	Mean MEPS cost (\$)	Mean MCCPDC cost (\$)	MEPS – MCCPDC	p-value
CHLORHEXIDINE TOPICAL	40	6.44	13.84	-7.40	<0.001
AZELASTINE	164	21.15	16.93	4.23	0.006
IPRATROPIUM NASAL	40	21.54	17.53	4.01	0.006
FLUTICASONE NASAL	6	4.58	16.64	-12.06	0.020
CIPROFLOXACIN-DEXAMETHASONE OTIC	11	112.86	87.01	25.85	0.242
OFLOXACIN	56	14.64	13.84	0.80	0.442
HYDROCORTISONE/NEOMYCIN/POLYMYXIN B OTIC	7	49.92	46.06	3.87	0.540

**Table 3.** Comparisons of out of pocket cost means for solution drug forms among uninsured patients.

## Discussion

### Conclusions:

- Across >17,000 prescription fills, MCCPDC prices were generally higher than MEPS out-of-pocket costs, with savings observed in only ~10% of fills. Uninsured patients were the subgroup most likely to benefit, with 24% of fills costing less through MCCPDC; however, their average costs still remained significantly higher overall.
- A notable exception was uninsured patients prescribed intranasal or otic solutions (e.g., azelastine, ipratropium, fluticasone), where MCCPDC offered statistically significant per fill savings. This likely reflects the relatively high retail cash prices of brand-name or specialty spray formulations when purchased without insurance, compared with MCCPDC's flat transparent pricing.
- While MCCPDC is unlikely to replace insurance coverage for most patients, it may provide targeted cost relief for the uninsured, particularly for certain solution-based ENT medications with high out-of-pocket retail costs.

### Limitations:

- Insurance variability: wide range of out-of-pocket costs across insurance plans makes direct comparisons with MCCPDC challenging.
- Data scope: Analysis based on statistical datasets from 2022 may not reflect current insurance policies or pricing.
- Patient specific factors: Results may not account for different patient demographics or geography, which were not reported in the MEPS data.
- Specialty focus: Study limited to otolaryngology medications and findings may not generalize to patients requiring drugs from multiple specialties.

### Future Directions:

- Comparison of updated MCCPDC and MEPS data to assess changes in trends.
- Expand the scope to include medications from different specialties and analyze potential benefits.
- Incorporate patient level data to capture variability in insurance plans and geography.
- Explore patient perspectives through surveys to understand accessibility, hesitations, and utilization of the MCCPDC platform.

## References

1. Nhe fact sheet [Internet]. [cited 2024 Dec 30]. Available from: <https://www.cms.gov/data-research/statistics-trends-and-reports/national-health-expenditure-data/nhe-fact-sheet>
2. Grace Sparks AK. Public opinion on prescription drugs and their prices [Internet]. 2024 [cited 2024 Dec 30]. Available from: <https://www.kff.org/health-costs/poll-finding/public-opinion-on-prescription-drugs-and-their-prices/>
3. Watanabe JH, McInnis T, Hirsch JD. Cost of Prescription Drug-Related Morbidity and Mortality. Ann Pharmacother. 2018 Sep;52(9):829-837. doi: 10.1177/1060028018765159. Epub 2018 Mar 26. PMID: 29577766.
4. Mission of mark cuban cost plus drugs: Mark cuban cost plus drug company [Internet]. [cited 2024 Dec 30]. Available from: <https://www.costplusdrugs.com/mission/>
5. Kouzy R, El Alam MB, Corrigan KL, Lalani HS, Ludmir EB. Patient-Level Savings on Generic Drugs Through the Mark Cuban Cost Plus Drug Company. JAMA Health Forum. 2024 Jun 7;5(6):e241468. doi: 10.1001/jamahealthforum.2024.1468. PMID: 38874962; PMCID: PMC11179122.
6. Schloegel V, Harris L, Harris A, Dropkin B. Evaluation of Potential Urologic Prescription Drug Savings With Mark Cuban Cost Plus Drug Company. Urol Pract. 2024 Mar;11(2):276-282. doi: 10.1097/UUP.0000000000000510. Epub 2024 Feb 20. PMID: 38377158.
7. [Internet]. [cited 2024 Dec 30]. Available from: <https://data.cms.gov/provider-summary-by-type-of-service/medicare-part-d-prescribers/medicare-part-d-prescribers-by-provider-and-drug>