

Fluticasone Furoate/Umeclidinium/Vilanterol Vs Open Triple Therapy for Treating Severe to Very Severe Chronic Obstructive Pulmonary Disease (COPD) from a Brazilian Public Healthcare Perspective: A Budget Impact Analysis

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Background

- Since 2021, open triple therapy with LABA/LAMA + ICS are reimbursed for COPD treatment in Brazilian Public Healthcare System (SUS).
- These therapies are dispensed at different dispensing points with multiple inhalers, which can contribute to increased chance of errors.
- This study aims to assess the budget impact the use of single inhaler triple therapy with fluticasone furoate/umeclidinium/vilanterol (FF/UMEC/VI) in SUS.

Methods

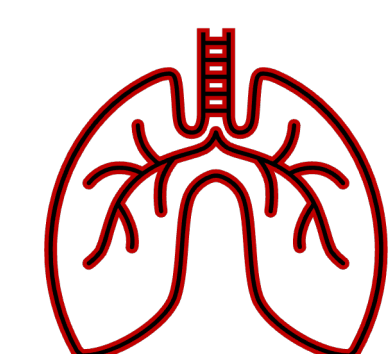
- Using a 5-year budget impact analysis, we evaluated the financial impact of progressive switch from UMEC/VI + BUD or BECL and TIO/OLO + BUD or BECL to FF/UMEC/VI.
- Population eligible was estimated using local published data:



9% COPD prevalence in adults ≥40 years;^{2,3} (n=8,259,245)



30% of which were diagnosed;⁴ (n=2,477,773)



2.86% with severe to very severe COPD with exacerbation and symptoms profile (GOLD 3 and 4; GROUP D).⁵ (n=70,864)

Results

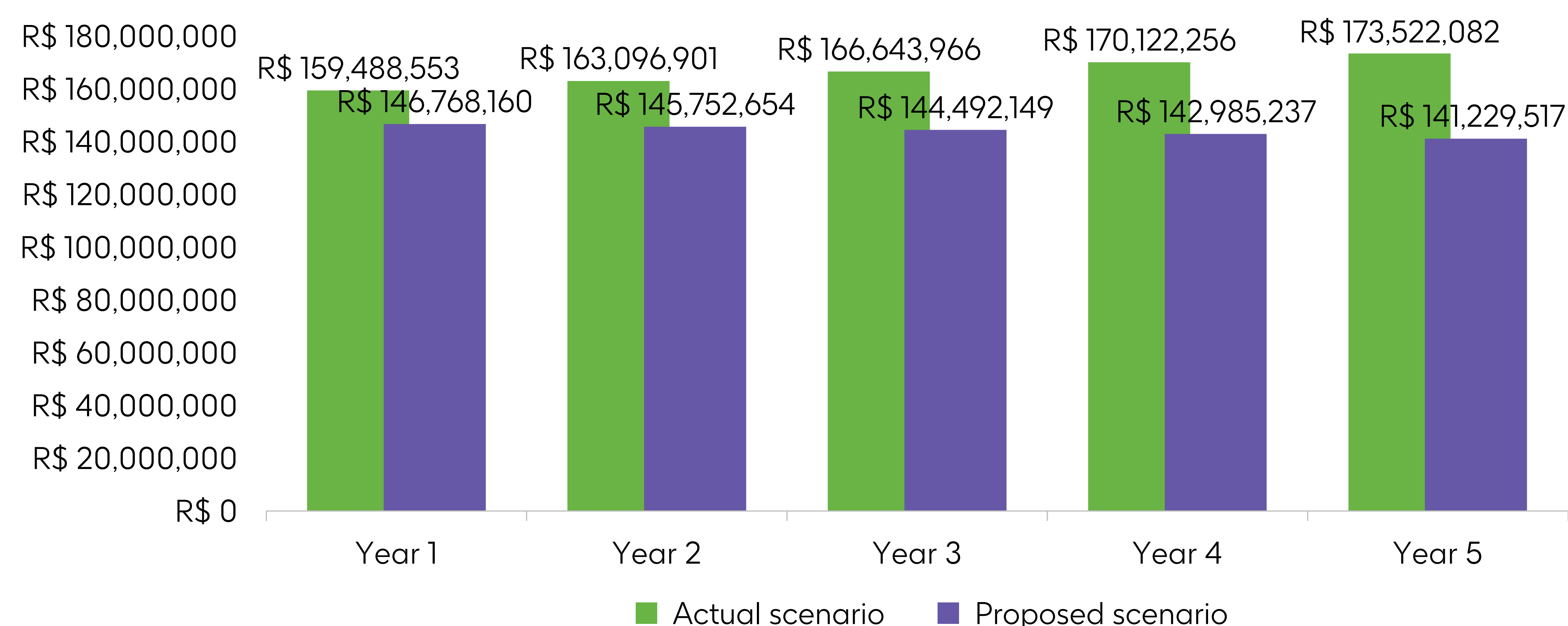
Table 1: Market share: Actual scenario based on volumes available on public sales databases (BPS)

	(FF/UMEC/VI)	UMEC/VI+BUD 800 mcg	UMEC/VI+BUD 400 mcg	UMEC/VI+BECL 800 mcg	TIO/OLO+BUD 800 mcg	TIO/OLO+BUD 400 mcg	TIO/OLO+BECL 800 mcg	Total
Year 1	0%	41.95%	2.21%	2.84%	47.31%	2.49%	3.20%	100.00%
Year 2	0%	41.95%	2.21%	2.84%	47.31%	2.49%	3.20%	100.00%
Year 3	0%	41.95%	2.21%	2.84%	47.31%	2.49%	3.20%	100.00%
Year 4	0%	41.95%	2.21%	2.84%	47.31%	2.49%	3.20%	100.00%
Year 5	0%	41.95%	2.21%	2.84%	47.31%	2.49%	3.20%	100.00%

Table 2: Market share: Proposed scenario by introduced 21% of FF/UMEC/VI with increased of 7% per year

	(FF/UMEC/VI)	UMEC/VI+BUD 800 mcg	UMEC/VI+BUD 400 mcg	UMEC/VI+BECL L 800 mcg	TIO/OLO+BU D 800 mcg	TIO/OLO+BUD 400 mcg	TIO/OLO+BECL 800 mcg	Total
Year 1	21%	33%	1.74%	2.2%	37%	1.97%	3%	100.0%
Year 2	28%	30%	1.59%	2.0%	34%	1.79%	2%	100.0%
Year 3	35%	27%	1.44%	1.8%	31%	1.62%	2%	100.0%
Year 4	42%	24%	1.28%	1.6%	27%	1.44%	2%	100.0%
Year 5	49%	21%	1.13%	1.4%	24%	1.27%	2%	100.0%

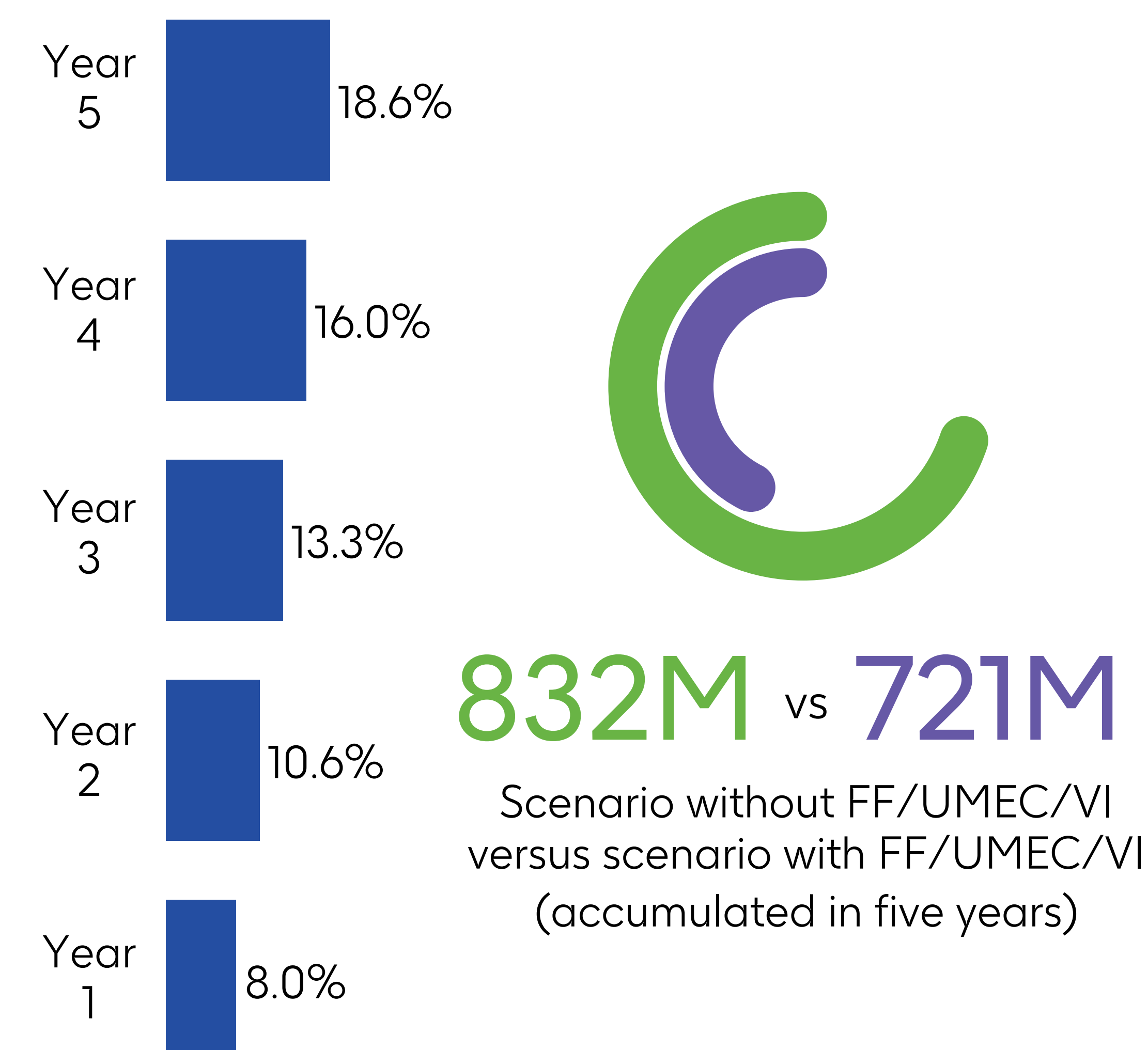
Figure 1: Budget impact analysis for FF/UMEC/VI versus UMEC/VI + BUD or BECL and TIO/OLO + BUD or BECL. The price considered for comparators were volume weighted average available in BPS. Cost is presented in Brazilian Reals (BRL/R\$)



Conclusion

- Switching eligible patients with COPD to single inhaler triple therapy with FF/UMEC/VI can lead to savings of 13 million BRL in first year, 32 million BRL in fifth year and 112 million BRL accumulated in five years total compared to open triple therapy.
- This study suggests a better allocation of resources with equivalent therapeutic gain paralleled with assumed adherence benefits for eligible patients with COPD⁷.

Figure 2: Savings by introduce single inhaler triple therapy with FF/UMEC/VI



Abbreviations

BECL: beclomethasone; BPS: Brazilian Public Sales Database; BRL: Brazilian Reals; BUD: budesonide; COPD: chronic obstructive pulmonary disease; FF/UMEC/VI: fluticasone furoate/umeclidinium/vilanterol; GOLD: Global Initiative for Chronic Obstructive Lung Disease; ICS: inhaled corticosteroid; LABA: Long-acting beta-agonist; LAMA: long-acting muscarinic antagonist; SUS: Public Healthcare System; TIO/OLO: tiotropium/olodaterol; UMEC/VI: umeclidinium/vilanterol.

References

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Disclosures

The authors MA, GB and ST are GSK employees and eligible for stocks.

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