

Evaluating the Budget Impact of Single Inhaler Triple Therapy (Fluticasone Furoate/Umeclidinium/Vilanterol) in Patients with Moderate to Severe Asthma in the Saudi Healthcare System



The introduction of FF/UMEC/VI as treatment of uncontrolled asthma patients is expected to save costs and reduce healthcare resource utilization in Saudi Arabia

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English version



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Background

- Asthma is a common chronic respiratory disease affecting over 330 million people worldwide, with projections reaching 400–450 million by 2025. In Saudi Arabia, asthma prevalence is over 14% among adults, yet less than one-third of patients achieve asthma control, significantly impacting their quality of life.¹⁻²
- FF/UMEC/VI has been approved recently in Saudi Arabia for treating patients with asthma, making it important for Saudi payers to understand the economic impact from a healthcare perspective to guide informed decision-making

Aims

This budget impact analysis aims to estimate the number of adult patients with uncontrolled asthma eligible for FF/UMEC/VI treatment and to calculate its potential budgetary impact on the Saudi healthcare system over the first five years.

Study design

A budget impact model constructed in Microsoft Excel (2016) evaluated the five-year financial impact of switching to FF/UMEC/VI for adults with uncontrolled asthma on at least ICS/LABA therapy within the Saudi healthcare system, from the national healthcare payer's perspective, focusing solely on direct medical costs.

The target population was estimated based on demographic inputs and asthma prevalence. GSK internal analysis along with local intelligence reports were used to define the baseline market share distribution in a "Without FF/UMEC/VI" scenario.³⁻⁴ While for FF/UMEC/VI's market share uptake was projected between 0.8%-2% for medium-dose and 1.1%-3.2% for high-dose over five years, without expanding asthma diagnosis rates. Finally, these inputs were applied to reflect the "With FF/UMEC/VI" scenario, showing shifts in the different therapies.

Drug acquisition costs were derived from SFDA drug list. Efficacy-related costs were estimated based on symptoms severity reduction (measured by ACQ-7 score changes). HRU rates (e.g., rescue medication use, oral corticosteroid use, and healthcare encounters) were adjusted based on the incidence rate ratio per unit change in ACQ score, reflecting the correlation between symptom reduction and lower HRU consumption.⁵⁻⁷

Results

Over five years, the total budget impact for both doses, including drug acquisition and healthcare resource use costs (excluding dispensing fees), was estimated at -10.7 million USD (-16.3 USD per eligible patient). Annual incremental impacts ranged from -0.92 million USD in Year 1 to -2.6 million USD in Year 5.

Table 1: Annual net Budget Impact.

Setting	Year 1 (2026)	Year 2 (2027)	Year 3 (2028)	Year 4 (2029)	Year 5 (2030)	Total
Incremental drug acquisition costs	-\$876,642	-\$2,146,109	-\$2,262,317	-\$2,391,161	-\$2,523,299	-\$10,199,528
Incremental resource use costs	-\$42,650	-\$104,411	-\$110,064	-\$116,333	-\$122,761	-\$496,219
Net Budget Impact	-\$919,292	-\$2,250,520	-\$2,372,381	-\$2,507,494	-\$2,646,060	-\$10,695,746
Budget Impact per patient	-\$1.45	-\$3.50	-\$3.64	-\$3.79	-\$3.94	-\$16.32

Deterministic sensitivity analysis demonstrated that final share of FF/UMEC/VI, followed by the percentage of patents treated with asthma controller, and percentage of patients uncontrolled on ICS LABA are the data inputs that most impacted the results.

Figure 2: Deterministic sensitivity analysis (DSA)

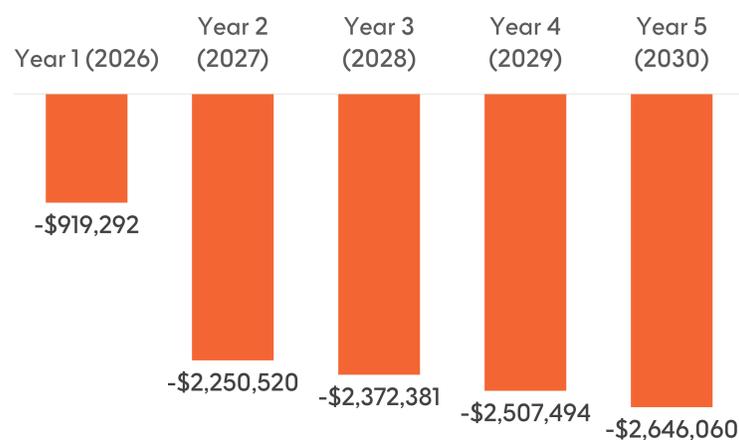
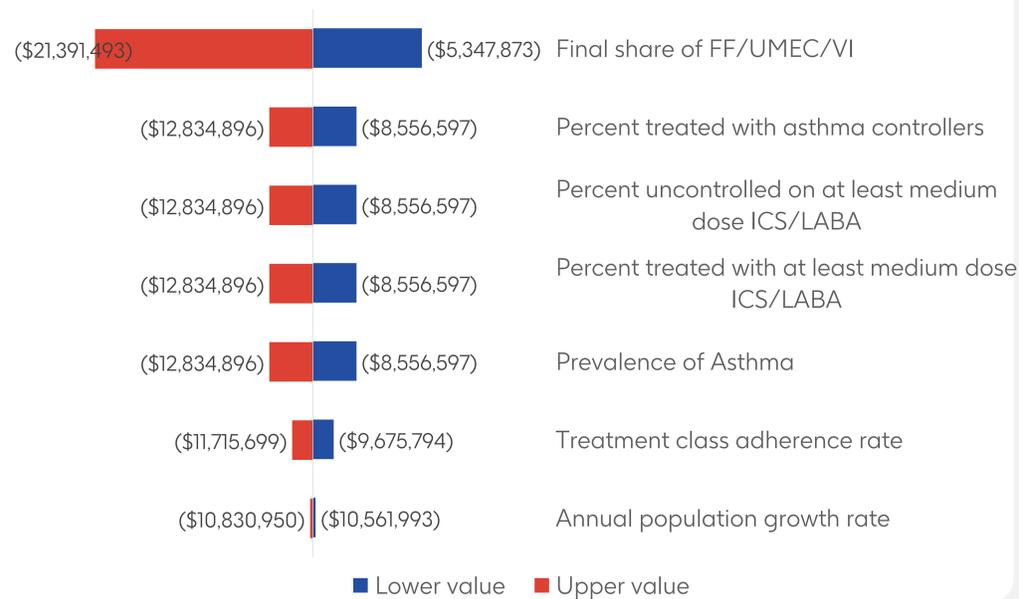


Figure 1: Budget impact of FF/UMEC/VI in the management of uncontrolled asthma patients

Conclusions

The introduction of FF/UMEC/VI in the management of uncontrolled asthma in the Saudi healthcare system is expected to save costs and reduce healthcare resource utilization. The net budget impact for FF/UMEC/VI is expected to save approximately 10.7 m USD on a national level and save 16.3 USD per patient over 5 years time horizon.

Given its affordability, effectiveness, and budget-saving potential, FF/UMEC/VI is a promising option for treating moderate-to-severe asthma in Saudi Arabia and should be considered in future treatment strategies.

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Disclosures

Hind Tagoon, MSc, Hany Soliman, MD, and Mohamed El Khedr Hassan, MSc, are employees of GSK, the funding company for this abstract. Abdalla Alasiri, MBBS, SBIM, has received honoraria from GSK. Hana Abdullah Alabdulkarim, BSc, MSc, PhD, Maha Abushal, Pharm D, SSCIMP, Suliman Alabdulaali, and Khalidah Ahmed Alenzi, MSc, declare no potential conflicts of interest.