Comparing & Contrasting Breztri® & Trelegy®

	BREZTRI®	TRELEGY®
GENERIC NAME	budesonide / glycopyrrolate / formoterol fumarate (BUD/GLY/FOR)	fluticasone furoate / umeclidinium / vilanterol (FF/UMEC/VI)
BRAND NAME	Breztri®	Trelegy®
APPROVAL	July 2020	September 2017
ORIGINAL MANUFACTURER	AstraZeneca	GlaxoSmithKline
AVAILABLE FORMULATIONS	budesonide 160 mcg / glycopyrrolate 9 mcg / formoterol fumarate 4.8 mcg	fluticasone furoate 100 mcg / umeclidinium 62.5 mcg / vilanterol 25 mcg fluticasone fuorate 200 mcg / umeclidinium 62.5 mcg / vilanterol 25 mcg
FDA APPROVED INDICATIONS	Maintenance treatment of COPD	Maintenance treatment of asthma (≥18 y.o.) and COPD
OFF-LABEL INDICATIONS	None	None
PATIENT ADMINISTRATION INSTRUCTIONS	Shake well and place mouthpiece between teeth, closing lips around inhaler; inhale deeply, press the top counter, and hold breath for up to 10 seconds; remove mouthpiece from mouth prior to exhalation	Exhale fully before taking one long, steady, deep breath through the mouthpiece; hold breath for 3 to 4 seconds and exhale slowly and gently
DOSAGE REGIMENS	2 inhalations BID	1 inhalation once daily
THERAPEUTIC CLASS	Combination LABA/LAMA/ICS	Combination LABA/LAMA/ICS
TYPE OF INHALER	Metered-dose inhaler (MDI)	Dry powder inhaler (DPI)

MECHANISM OF ACTION	The LABA and LAMA work to relax the muscles around the airways, while the ICS reduces inflammation in the airways	The LABA and LAMA work to relax the muscles around the airways, while the ICS reduces inflammation in the airways
CONTRAINDICATIONS	Hypersensitivity to any of the components	Hypersensitivity to any of the components
ADVERSE REACTIONS	URI (6%), pneumonia (2-5%), cough (3%), oral candidiasis (3%)	Nasopharyngitis (≤17%), pneumonia (≤8%), URI (≤7%), headache (4-9%)
MONITORING PARAMETERS	FEV1 and/or peak flow; bone mineral density; BP; HR; serum potassium and glucose; ocular changes; signs / symptoms of oral or systemic infection, or adrenal suppression	FEV1 and/or peak flow; bone mineral density; BP; HR; serum potassium and glucose; ocular changes; signs/symptoms of oral or systemic infection, or adrenal suppression
COUNSELING POINTS	Administer every morning and evening; prime inhaler prior to first use or after weekly cleaning; shake inhaler well before each use; rinse mouth with water after each use	Administer at the same time each day; Following administration, rinse mouth with water after use
COST (AWP)	**160-9-4.8 mcg/ACT**: $70.25 / gram	**100-62.5-25 mcg/ACT**: $12.75 / each **200-62.5-25 mcg/ACT**: $12.75 / each

Comparative Evidence

Study	Summary of Findings
Comparing the Efficacy and Safety Profile of Triple Fixed-Dose Combinations in COPD: A Meta-Analysis and IBiS Score (2022)	Comparisons of efficacy and safety profile across the currently available ICS/LABA/LAMA products for COPD should be interpreted with caution.
Efficacy and Safety of Budesonide / Glycopyrronium / Formoterol Fumarate versus Other Triple Combinations in COPD: A Systematic Literature Review and Network Meta-analysis (2021)	Breztri was shown to have comparable efficacy to other ICS/LAMA/LABA products with regards to reducing exacerbation rates and improving lung function.
Fluticasone Furoate / Umeclidinium / Vilanterol (FF/UMEC/VI) Triple Therapy Compared with Other Therapies for the Treatment of COPD: A Network Meta-Analysis (2022)	Trelegy was shown to demonstrate favorable efficacy compared to other ICS/LAMA/LABA products, greater patient adherence, greater quality of life, and greater improvement in lung function.

These studies suggest that Breztri may have a superior efficacy profile compared to Trelegy, particularly in terms of reducing the risk of exacerbations. However, it's important to consider individual patient factors and preferences, as well as cost and availability, when selecting the most appropriate medication for COPD management. Factors such as dosing frequency of (twice daily for Breztri vs. once daily for Trelegy) and type of inhaler device used (dry powder versus pressurized metered dose) may influenza a patient's adherence to their regimen.

Resources:

Bourdin, A., Molinari, N., Ferguson, G. T., Singh, B., Siddiqui, M. K., Holmgren, U., Ouwens, M., Jenkins, M., & De Nigris, E. (2021). Efficacy and safety of Budesonide/glycopyrronium/formoterol fumarate versus other triple combinations in COPD: A systematic literature review and network meta-analysis. *Advances in Therapy*, *38*(6), 3089–3112. https://doi.org/10.1007/s12325-021-01703-z

Ismaila, A. S., Haeussler, K., Czira, A., Youn, J.-H., Malmenäs, M., Risebrough, N. A., Agarwal, J., Nassim, M., Sharma, R., Compton, C., Vogelmeier, C. F., Han, M. L. K., & Halpin, D. M. (2022). Fluticasone furoate/umeclidinium/vilanterol (FF/Umec/VI) triple therapy compared with other therapies for the treatment of COPD: A network meta-analysis. *Advances in Therapy*, *39*(9), 3957–3978. https://doi.org/10.1007/s12325-022-02231-0

Ora, J., Cavalli, F., Cazzola, M., & Calzetta, L. (2022). Comparing the efficacy and safety profile of triple fixed-dose combinations in COPD: A meta-analysis and Ibis Score. *Journal of Clinical Medicine*, *11*(15), 4491. https://doi.org/10.3390/jcm11154491