Moderate and Severe Exacerbations and Healthcare Resource Utilization in Chinese Patients with COPD on Triple Therapy: A Retrospective Database Study

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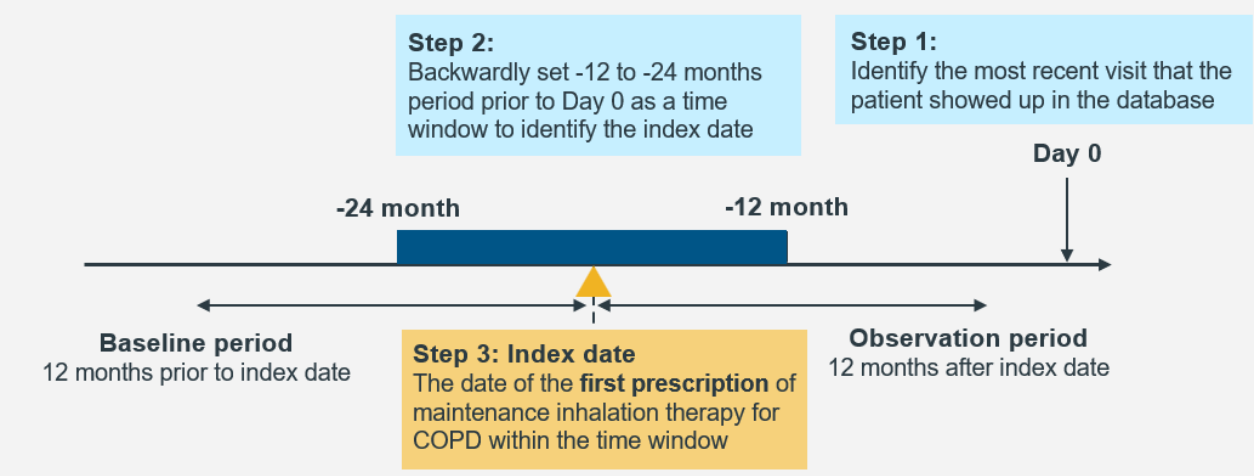
Appendix S1. Study design schematic



Abbreviation: COPD: Chronic Obstructive Pulmonary Disease.

Note: First, the most recent visit record of a patient was identified in the database between 01-Jan-2021 and 31-Dec-2023, referred to as Day 0. Then, a time window of -12 to -24 months prior to Day 0 was set backward to identify the index date. A patient's index date was defined as the date of the first prescription of maintenance inhaled therapy for COPD within the time window. The baseline period for a patient was defined as 12 months prior to the index date to capture the patient's baseline characteristics. The observation period was defined as 12 months after the index date to collect study endpoints.

Appendix S2. Inhaled therapy regimen and drug list

The derivation rules of inhaled therapy regimen

Inhaled therapy regimen was derived by steps as below:

1. Defining prescription: All prescriptions belonging to the drugs as defined in the list of drugs for inhaled therapy were directly abstracted from the prescription records.

2. Defining treatment episode: Prescriptions from the same drug class as defined in the list of drugs for inhaled therapy were grouped into a treatment episode if the gap of adjacent prescriptions was ≤ 60 days. For prescriptions whose dosage form was suspension or solution, the duration of prescriptions must be ≥ 3 days when defining treatment episode.

3. Defining inhaled therapy regimen: Regimens were defined at single, dual and triple therapy level based on the time overlap of episodes and drug class(es) within the episodes. Only regimens with treatment duration ≥ 90 days were counted.

List of drugs for inhaled therapy

Category	**Drug class**	**Ingredient**
Monotherapy	ICS	Beclomethasone
		Budesonide
		Fluticasone
		Ciclesonide
	LABA	Procaterol
		Olodaterol

Category	Drug class	Ingredient
		Salmeterol
		Formoterol
		Indacaterol
	LAMA	Tiotropium
		Umeclidinium bromide
Dual therapy	LABA/LAMA	Formoterol/glycopyrronium bromide
		Indacaterol/glycopyrronium bromide
		Vilanterol/umeclidinium bromide
		Olodaterol/tiotropium bromide
	ICS/LABA	Formoterol/budesonide
		Formoterol/beclomethasone
		Salmeterol/fluticasone
		Vilanterol/fluticasone furoate
		Indacaterol/mometasone
Triple therapy	ICS/LABA/LAMA	Budesonide/formoterol/glycopyrronium bromide
		Fluticasone/vilanterol/umeclidinium bromide
		Beclomethasone/formoterol/glycopyrronium bromide

Category	Drug class	Ingredient
		Indacaterol/glycopyrronium bromide/mometasone

Abbreviations: ICS: Inhaled Corticosteroid; LABA: Long-Acting Beta2-Agonist; LAMA: Long-Acting Muscarinic Antagonist.