

Preliminary Real-World Results of a Community Pharmacy-Based Intervention in COPD: Evidence from the Chronic Diseases from A to Z Program

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Background

Chronic obstructive pulmonary disease (COPD) remains a major public health challenge, particularly among older adults¹. **Suboptimal adherence** and **poor inhaler technique** are frequent causes of uncontrolled symptoms, exacerbations and **increased healthcare utilization**². **Community pharmacies** (CPh) are highly accessible healthcare settings in Portugal and represent an untapped opportunity for COPD **screening**, **patient education** and **longitudinal therapeutic support**.

Purpose

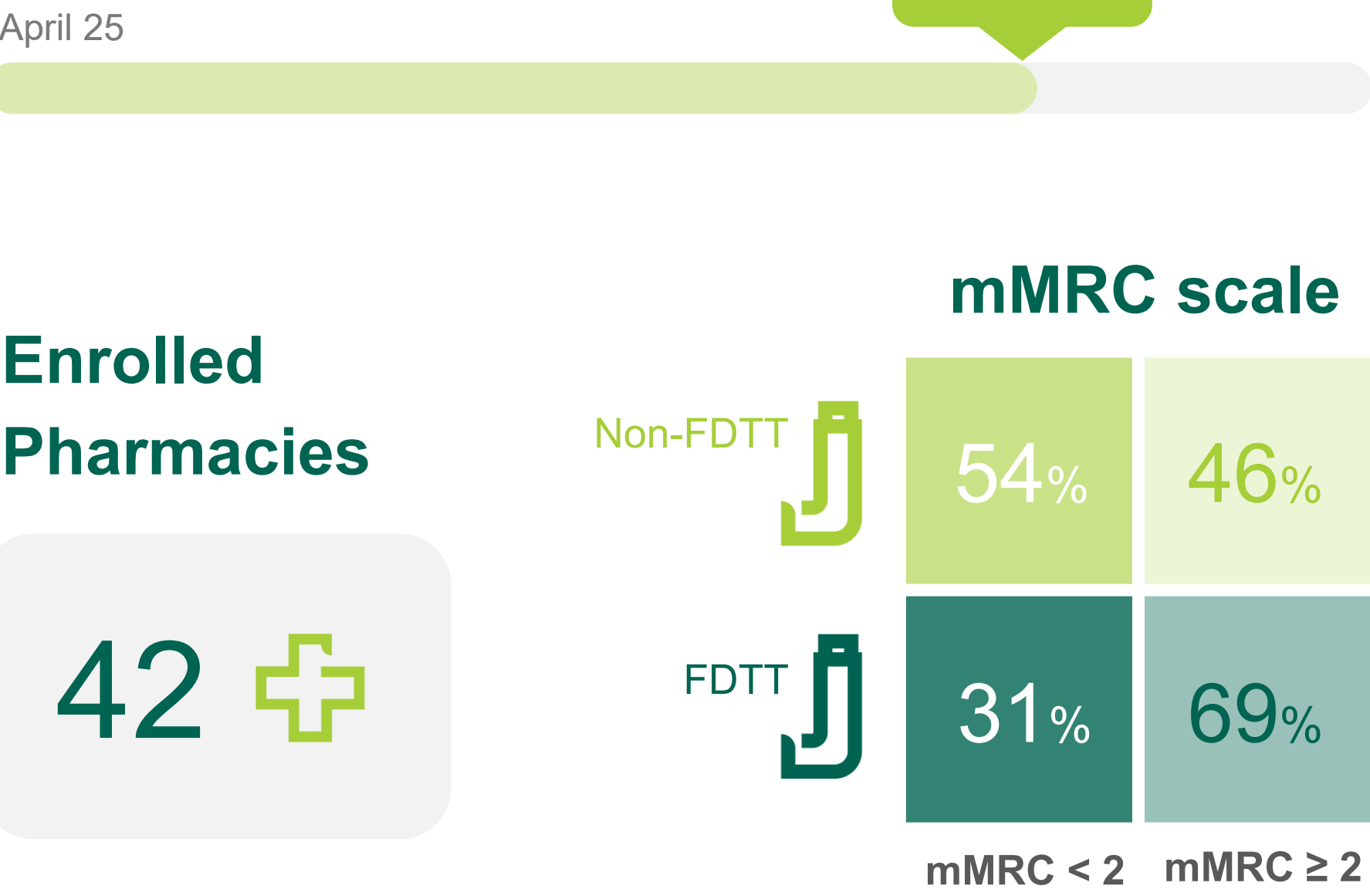
To describe the demographic and clinical characteristics of patients enrolled in a structured, **pharmacy-based intervention for COPD** in Portugal, and to assess the **feasibility** of CPh in engaging patients through a **disease awareness** campaign and a **medication management** program for those on fixed-dose triple therapy (FDTT).

Results

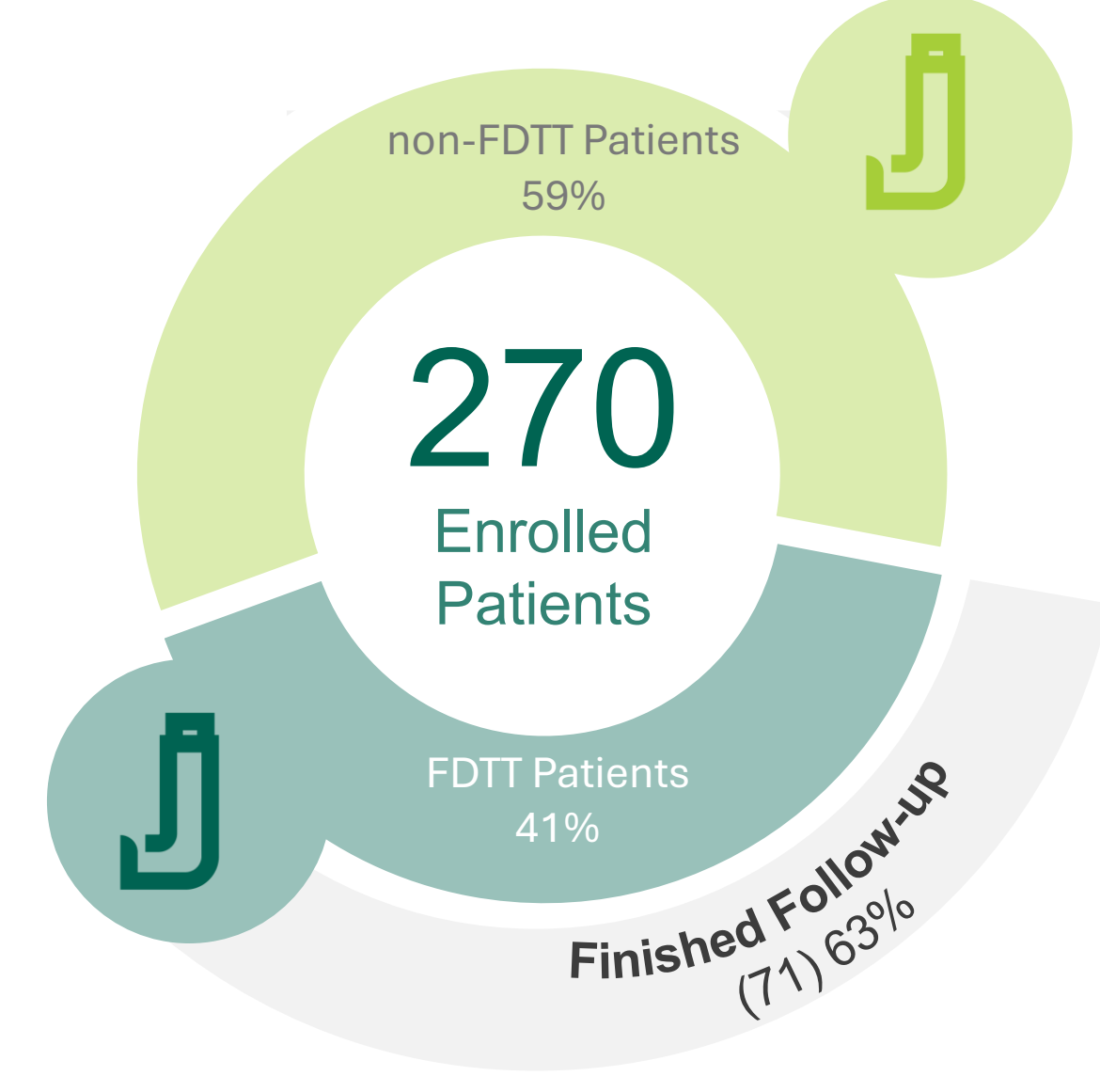
Key results (Updated on September 15, 2025)

- 270 COPD patients enrolled: 158 non-FDTT (59 %) and 112 FDTT (41 %).
- 71 FDTT patients have already completed 3-months follow-up period.
- Mean age 67.4 years; 51% female.
- FDTT patients had higher symptom burden (mMRC ≥2: 69% vs 46%).
- Greater emergency-care use and treatment escalation, particularly among FDTT patients.
- Medication adherence and inhaler technique improved at 3 months.

Study progress



Patient Distribution



	Baseline Characteristics			Symptom Burden (in last week)		Exacerbation Outcomes (in last year)		
	Female	Mean age	Smoker	Cough	Sputum	ER visits	OCS/ATB	Hosp. event
Overall	51%	67,4	20%	48%	45%	32%	35%	14%
Non-FDTT	51%	66,3	17%	46%	42%	23%	27%	6%
FDTT	50%	69,1	25%	51%	50%	46%	47%	25%

FDTT Group Medication management & patient Education program		
T0 (112 participants)	Pharmacy intervention	T3 (71 participants)
88%	Adherence (VAS Scale) 81-100 [High]	96% ↑
85%	Correct inhaler technique	96% ↑
31%	mMRC < 2	44% ↑

Conclusions

This ongoing real-world pharmacy-based intervention is engaging COPD patients across Portugal, providing valuable insights into their clinical profiles and healthcare needs. Participants are predominantly older adults, with substantial symptom burden and frequent exacerbation. These preliminary results highlight the feasibility of engaging COPD patients in structured pharmaceutical interventions within CPh. Findings support CPh role, both in screening and in providing longitudinal support for chronic disease management in real-world settings, with the potential to deliver improved clinical outcomes.

Methods

This ongoing **real-world observational study**, conducted within the national “Chronic Diseases from A to Z” program, includes adult patients with self-reported COPD recruited during routine CPh visits.

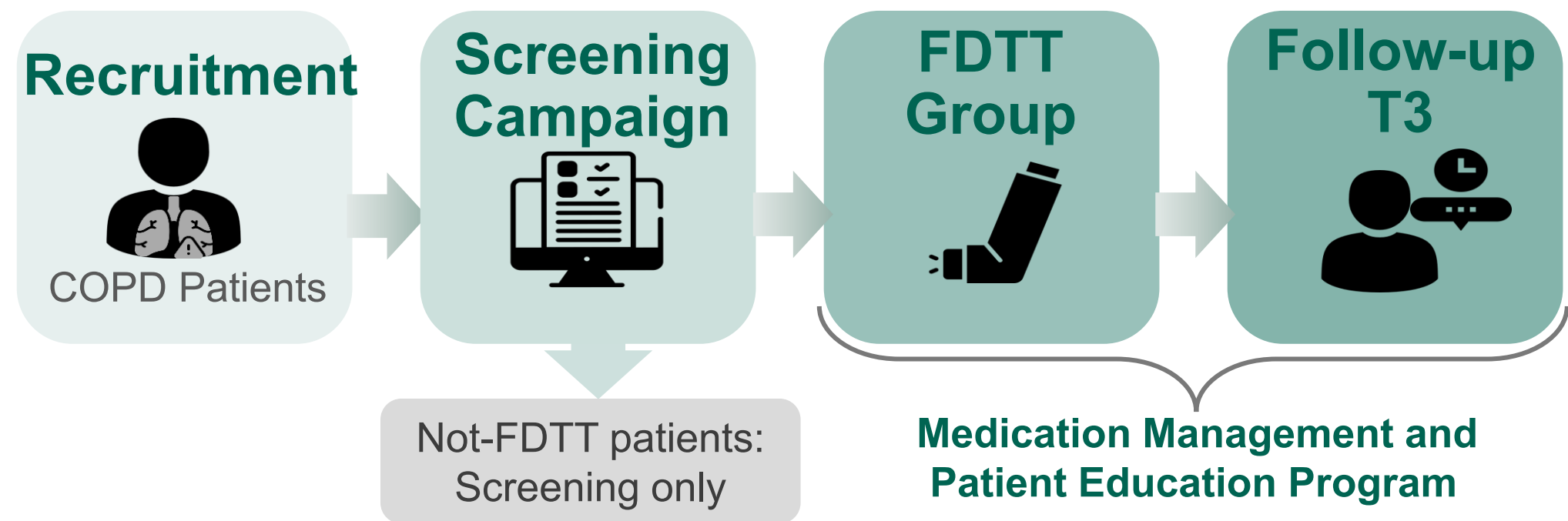


Figure 1 – Study phases

After screening, only FDTT patients entered a 3-month management program (T0–T3), while non-FDTT patients remained at baseline (Figure 1). Data were collected through standardized electronic forms, including demographics, symptoms, adherence, inhaler technique, and exacerbation history.

References

- Global Initiative for Chronic Obstructive Lung Disease (GOLD). Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease (2024 Report). 2023.
- World Health Organization. The Global Health Observatory, Global Health Estimates: Life expectancy and leading causes of death and disability. <https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates>

Acknowledgments

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