

PHARMACEUTICAL CARE TO OPTIMISE TREATMENT FOR ASTHMA AND CHRONIC OBSTRUCTIVE PULMONARY DISEASE IN A PRISON

Q. Lopez Noguera, S. Garcia Rodicio, N. Ramon Rigau, C. Ortí Juan, A. Dordà Benito, R. Sacrest Güell
Hospital Universitari Dr Josep Trueta De Girona, Pharmacy Department, Girona, Spain

BACKGROUND AND IMPORTANCE



Lung disease prevalence in the prison population is higher than in the general population of the same age. Pharmaceutical care detects and reduces drug-related problems by helping in therapy optimization and improving treatment adherence.

AIM AND OBJECTIVES

- 1 To improve the bronchodilator treatment of patients with asthma or chronic obstructive pulmonary disease (COPD) in prison.
- 2 To identify patients with low adherence in order to check the patient's inhalation technique and ensure proper administration.

MATERIAL AND METHODS

Observational, descriptive, retrospective study of patients with asthma and/or COPD diagnosis in August 2022.

DATA WERE COLLECTED:



- **Demographic data:** age, sex.
- **Clinical data:** body mass index, smoking habit, presence of exacerbations
- **Type of treatment**

ADHERENCE (between August 2021 – 2022):



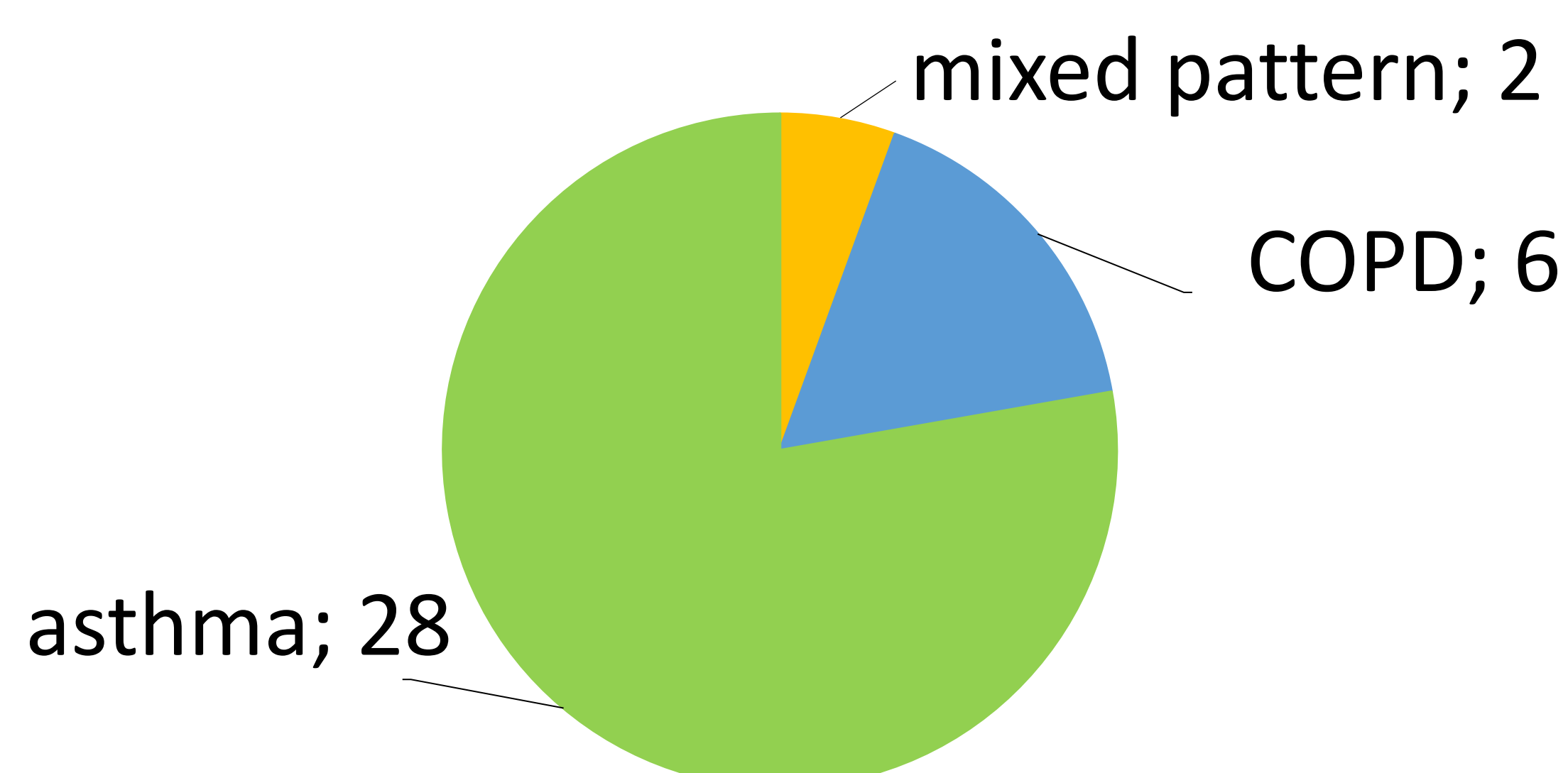
$$\text{Adherence} = \frac{\text{Packages collected}}{\text{Packages prescribed}}$$

- **Adherent patient** = if they had 100-80% of dispensations
- **Non-adherent** = if they had <80%
- **Poorly controlled due to bronchodilator treatment abuse** = if they had >100%

RESULTS

46 (6.7%) prisoner under bronchodilator treatment were identified out of 686.

- 10 were excluded (no chronic treatment)
- **36 were selected:**



- 40 ± 9 years
- 8.3% women
- 33 smokers
- 24 overweight or obese

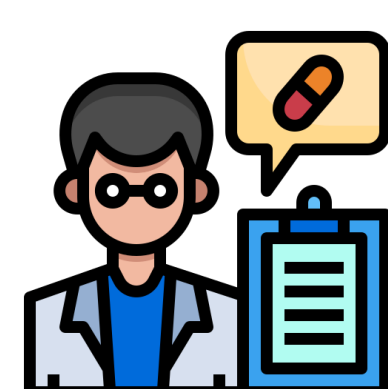
Bronchodilator treatment **could be optimized in 16/36 (44.4%) of patients:**

- **10 patients** with **asthma**
 - 5 without inhaled short-acting bronchodilator (SABA)
 - 5 used inhaled corticosteroids
- **6 patients** with **COPD**
 - 3 used SABA as maintenance treatment
 - 3 used inhaled corticosteroids without exacerbations over the last year



28/36 patients required **pharmaceutical care to improve patient's inhalation technique** (23 non-adherent and 5 treatment overuse).

CONCLUSION AND RELEVANCE



- This study shows us that almost half of bronchodilator treatments in prison can be optimized, and more than three quarters of the population have poor adherence.
- Pharmacists play a key role to optimize complex therapies. A specific pharmaceutical care program in prison should be carried out to identify drug-related problems.

