

# Reducing Short Acting Beta Agonist (SABA) prescribing in Lancashire and South Cumbria Integrated Care Board through SENTINEL Plus

Preston M<sup>1</sup>, Beaumont-Kellner H<sup>2</sup>, O'Reilly-Smyth A<sup>2</sup>, Lawson J<sup>1</sup>, Rooney M<sup>2</sup>

Medicines Optimisation (Fylde Coast), NHS Lancashire and South Cumbria Integrated Care Board<sup>1</sup>  
Medical and Scientific Affairs, Biopharmaceuticals Medical, London, AstraZeneca, United Kingdom<sup>2</sup>



## Introduction

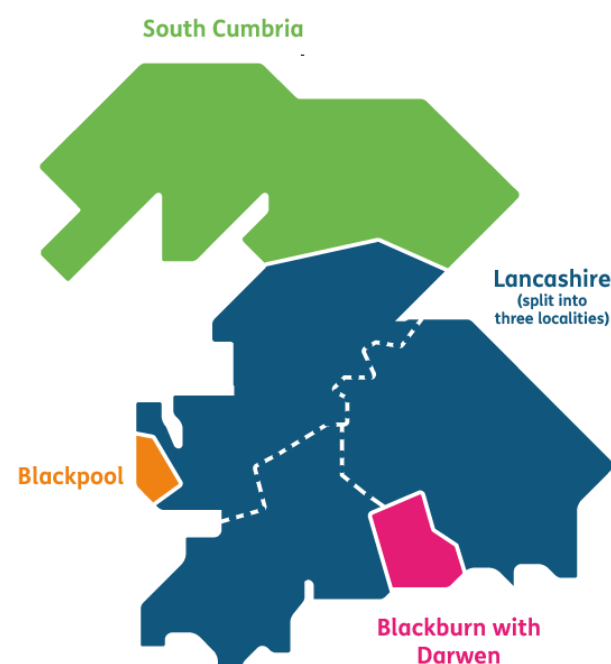
There has been a concern nationally regarding the over-reliance on SABA-only reliever among asthma patients which can lead to poor asthma control, increased risk of exacerbations, and potential long-term consequences including avoidable excess carbon footprint.

## Strategy for change

L&SC ICB joint working with AstraZeneca using SENTINEL Plus, a quality improvement programme that aims to improve asthma management in patients, identifying and addressing Short-acting Beta-2 Agonist (SABA) over-use and implementing Maintenance and Reliever Therapy (MART).

## Figure 1 Lancashire and South Cumbria ICB's place-based partnerships

Routinely collected NHS data were obtained across primary care networks (PCNs) within the Lancashire and South Cumbria ICB's place-based partnerships.



## What is SENTINEL Plus?

SENTINEL Plus is a quality improvement package that aims to improve outcomes for asthma patients and reduce the environmental impact of asthma treatment by identifying and addressing SABA over-use.

SENTINEL Plus utilises a co-designed intervention, developed during the SENTINEL Project.<sup>1</sup>

## Methods

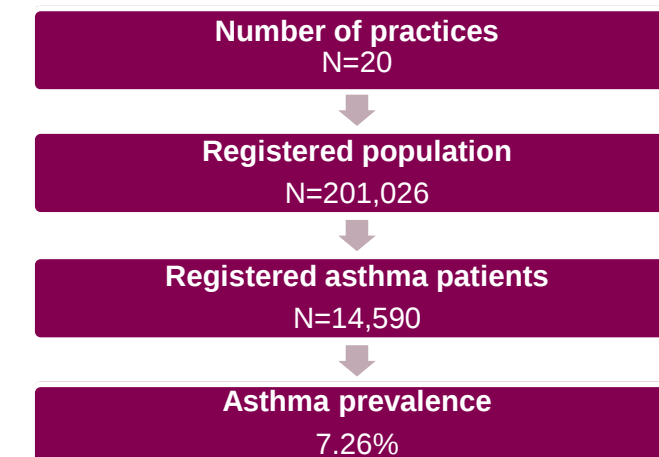
From October 2023 to September 2024, Interface Pharmacy Services analysed routinely collected NHS data to form a baseline (Table 1) and conducted asthma reviews aligned with SENTINEL Plus in 20 practices where 14,590 asthma patients are registered (Figure 2). Changes in prescribing practice were reported using descriptive statistics.

## Table 1 Baseline characteristics of asthma patients

Describes baseline characteristics of registered asthma patients in 20 practices.

| Baseline characteristics of registered asthma patients (N=14,590) | N (%)        |
|-------------------------------------------------------------------|--------------|
| Had an asthma review in past 12 months                            | 9,489 (65.0) |
| Assessment of inhaler technique in past 12 months                 | 4,290 (29.4) |
| ≥3 SABA prescribed in past 12 months                              | 3,233 (22.2) |
| ≥6 SABA prescribed in past 12 months                              | 4,241 (29.1) |

## Figure 2 Participating practice characteristics



## Results

### 1,048 patient reviews were undertaken:

- 598 (57.1%) patients had their short acting bronchodilator SABA-only or short acting muscarinic antagonist (SAMA) stopped
- 753 (71.9%) patients commenced on MART
- 932 (88.9%) reviewed patients received advice on worsening asthma control and provision of a personalised asthma action plan
- 89 patients out of 170 (52.3%) patients who smoke expressed wanting to stop smoking and were signposted/referred for smoking cessation service.
- 1,039 (99%) patients had their inhaler checked (Table 2)

## Table 2 Inhaler assessment technique findings

| Had assessment of inhaler technique during the review (N=1,039)                            | N (%)      |
|--------------------------------------------------------------------------------------------|------------|
| Assessed as having 'poor' inhaler technique                                                | 151 (14.5) |
| Assessed as being poorly compliant with current therapies used in the management of asthma | 214 (20.6) |

## Conclusions

The Lancashire and South Cumbria ICB joint working approach created a collaborative framework to encourage an interdisciplinary approach and foster partnerships across multiple stakeholders in the ICB.

This resulted in a reduction in SABA-only prescribing, and an increase in MART. Implementing guideline recommended therapy is critical to improve outcomes and to support decarbonising healthcare delivery.<sup>2</sup>

## Funding and Conflict of Interest Statement

This project was part funded by AstraZeneca as part of a joint working agreement. The NHS authors Melanie Preston, & Julie Lawson declare no conflicts of interest related to this work. All financial, professional, or personal relationships that could be perceived as influencing the content of this poster have been fully disclosed and managed according to AstraZeneca's policies. Helen Beaumont-Kellner, Aisling O'Reilly-Smyth, Mark Rooney are all employees of AstraZeneca and may hold stock or stock options in the company.

## References

- Crowther L, Pearson M, Cummings H, Crooks MG. Towards codesign in respiratory care: development of an implementation-ready intervention to improve guideline-adherent adult asthma care across primary and secondary care settings (The SENTINEL Project). *BMJ Open Respiratory Research*. 2022 Feb 1;9(1): e001155.
- Wilkinson AJK, Maslova E, Janson C, Radhakrishnan V, Quint JK, Budgen N, Tran TN, Xu Y, Menzies-Gow A, Bell JP. Greenhouse gas emissions associated with suboptimal asthma care in the UK: the SABINA healthCARE-Based environmental cost of treatment (CARBON) study. *Thorax*. 2024 Feb 27;79(5):412–21