

Abstract Presentations

3. Jennifer Quint, UK

SABINA: An international programme describing overuse of short-acting β_2 -agonists in asthma and related clinical outcomes

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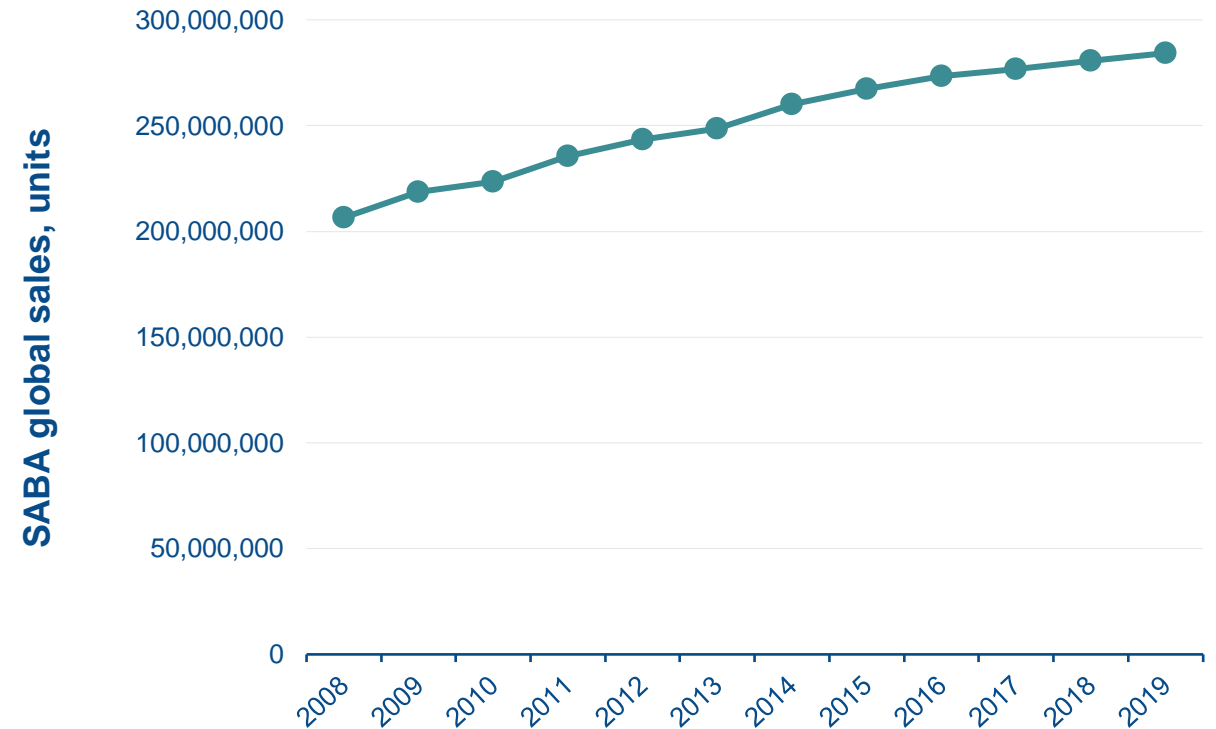
**Hot Topic Clinical Practice Webinar & Abstract Presentations
Saturday, 30th May 2020**

Breathing and feeling well through universal access to right care

SABA usage and exacerbations continue to impact patients worldwide



SABA usage continues to increase across the globe²



Asthma impacts patients worldwide, with 176 million asthma exacerbations occurring per year^{1,2}

1. Global Asthma Network. The Global Asthma Report 2018. http://www.globalasthmareport.org/resources/global_asthma_report_2018.pdf.

2. In-house data, AstraZeneca Pharmaceuticals LP. SD-3010-ALL-0017.

SABINA (SABA use IN Asthma) programme¹: The largest real-world study on SABA usage

Objective: To evaluate prescriptions, exacerbations and healthcare utilisation related to SABA use in asthma

SABINA I

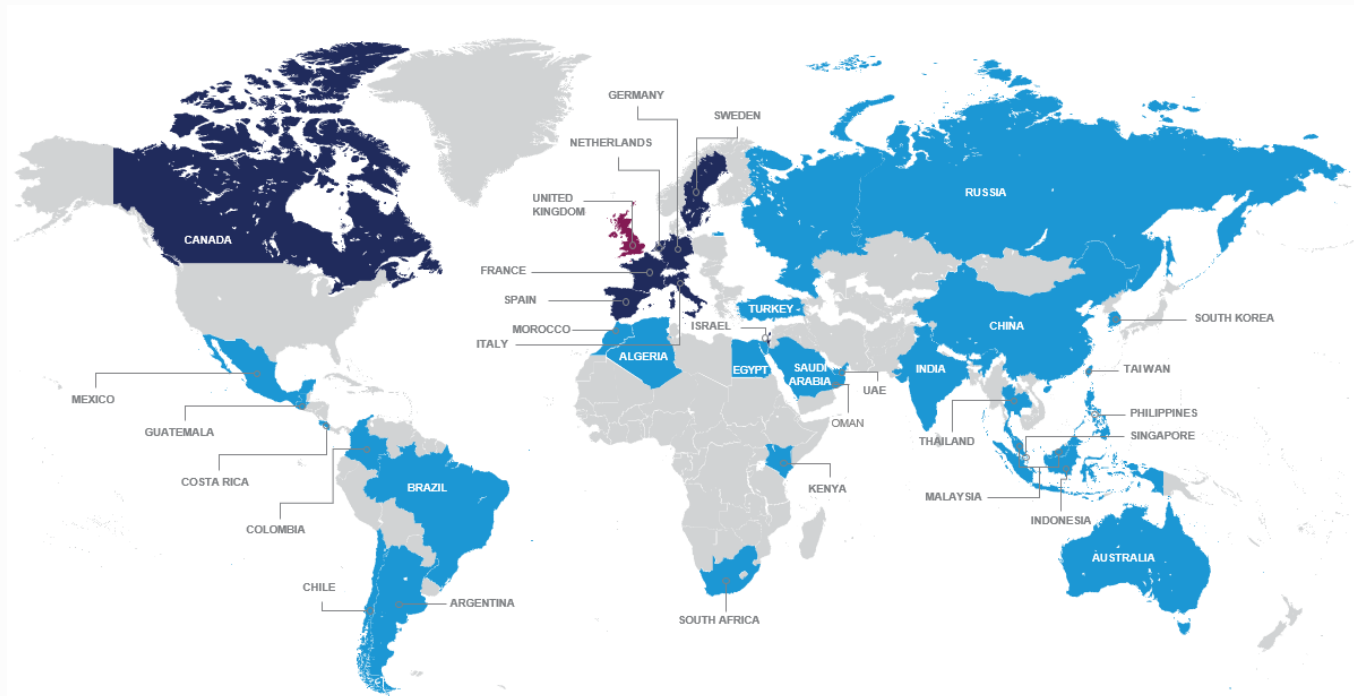
Retrospective observational database study in the UK

SABINA II

Retrospective observational database studies in Europe, Canada and Israel

SABINA III

Cross-sectional study in 27 countries



Structured

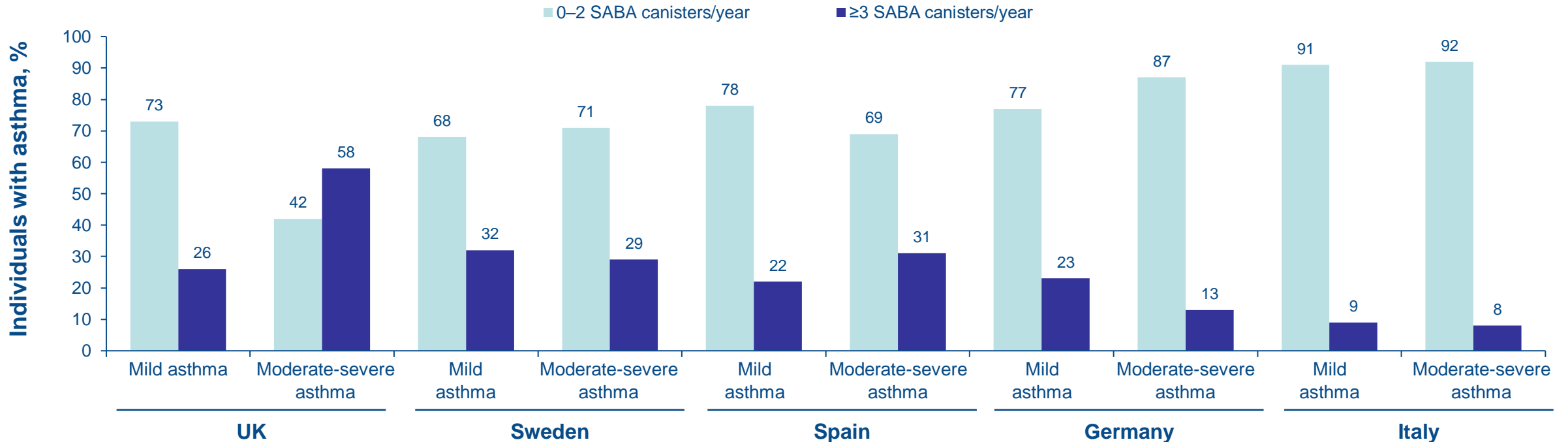
- One core protocol
- Streamlined results
- Core definitions

Flexible

- An adaptable research framework and protocol for data availability at a country and regional level
- Inclusion of additional outcomes where available

Pan-European overview of SABA use in over 1 million patients across 5 European countries¹

- High SABA inhaler use (≥ 3 SABA canisters/year) was prevalent across all severities of asthma in Europe: UK, 38%; Sweden, 30%; Spain, 29%; Germany, 16%; Italy, 9%



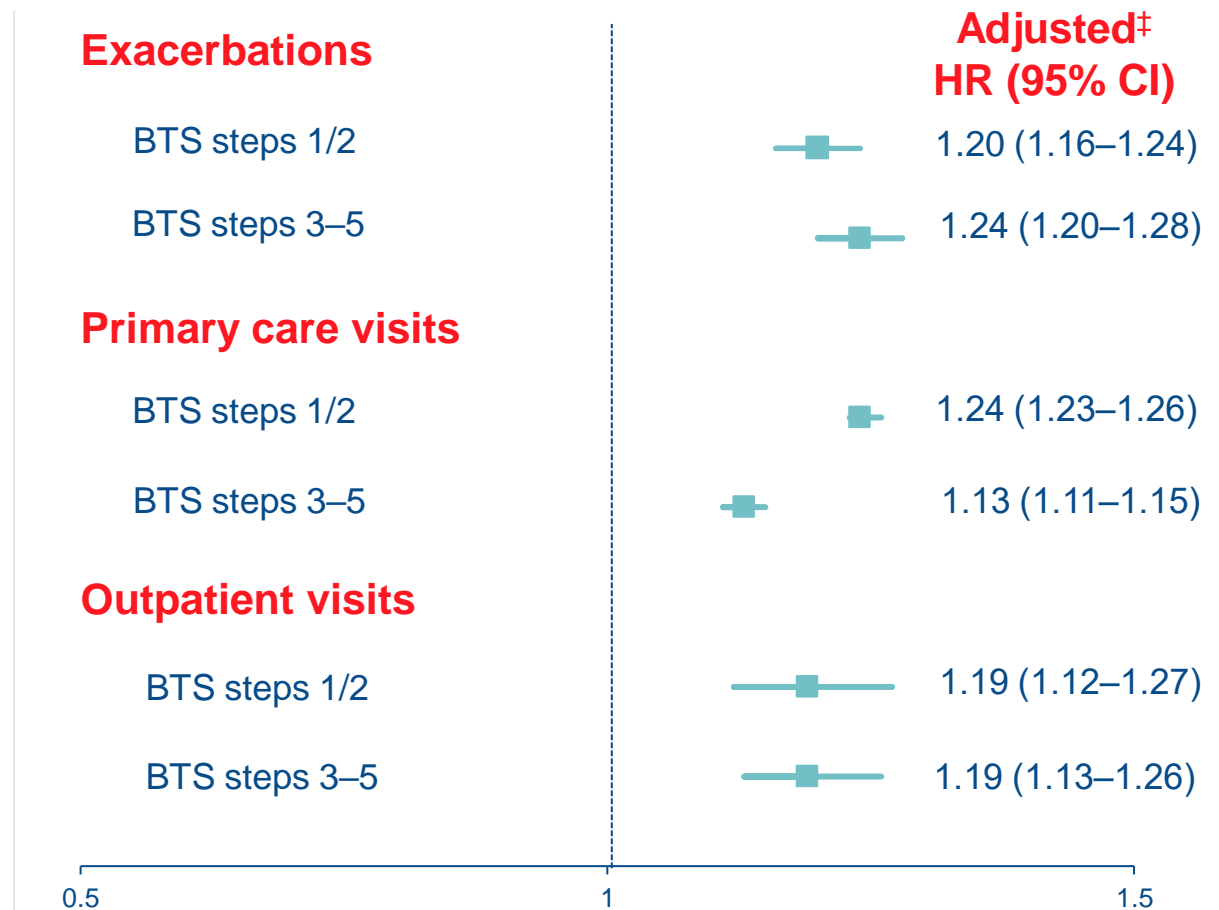
In Italy, many patients obtain SABA without prescriptions. Therefore, SABA prescription data may underestimate actual SABA use in Italy.

1. Janson C, et al. *Adv Ther* 2020; 37(3):1124–1135.

SABINA I: Results from a retrospective, longitudinal, observational study* in over half a million UK patients¹

- High SABA inhaler use (≥ 3 SABA canisters/year) was prevalent in over one-third of all patients with asthma (n=574,913)
- High SABA inhaler use was associated with a significant increase in risk of exacerbations[†] and primary care and hospital outpatient visits

Associations between high SABA inhaler use and risk of exacerbations, primary care and hospital outpatient visits



*UK Clinical Practice Research Datalink cohort 2007–2017.

[†]Exacerbations defined as asthma worsening that necessitated a short course of OCS, an A&E department visit, a hospital admission or death secondary to asthma.

[‡]Adjusted for age, sex, socioeconomic status, BMI, smoking history, exacerbation history, ICS use, adherence and comorbidities.

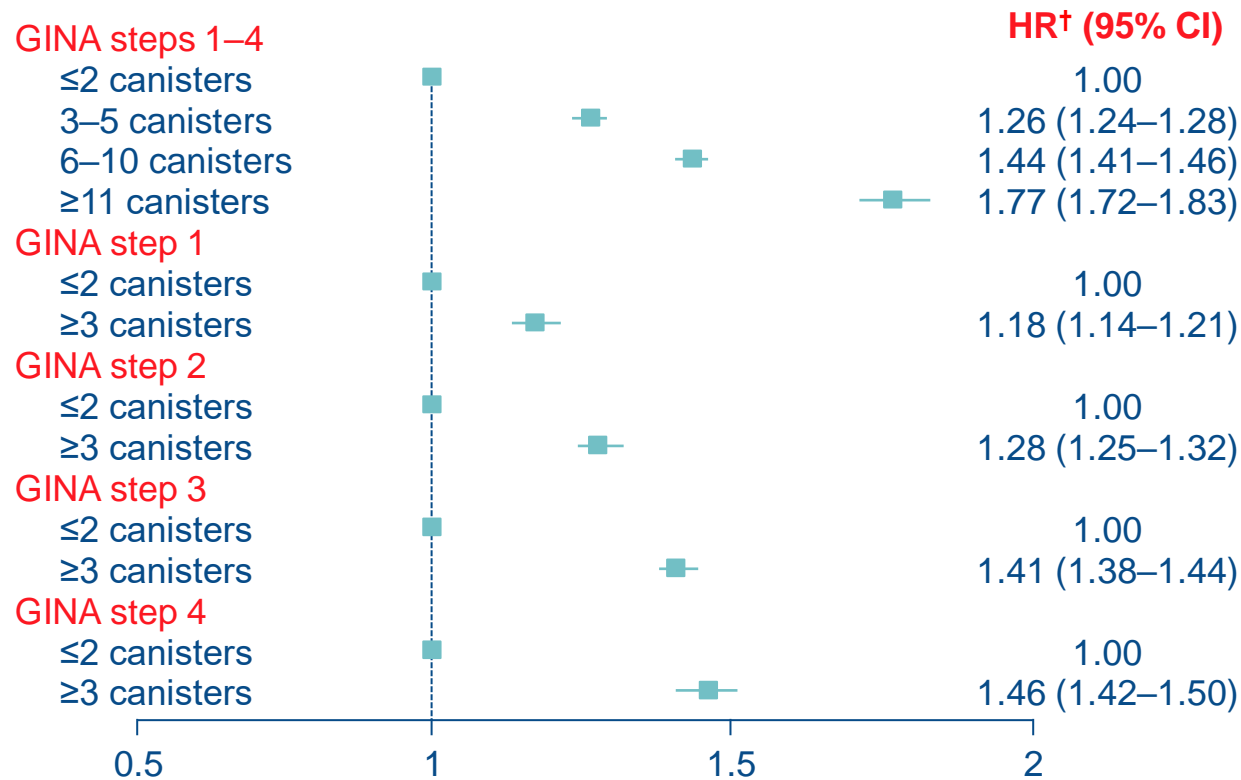
BTS step 1=no ICS; step 2=low-dose ICS; step 3=low-dose ICS + long-acting β_2 -agonist; step 4=medium-dose ICS \pm additional therapies; step 5=high-dose ICS \pm additional therapies

1. Bloom CI, et al. 2020 (manuscript submitted to *Advances In Therapy*).

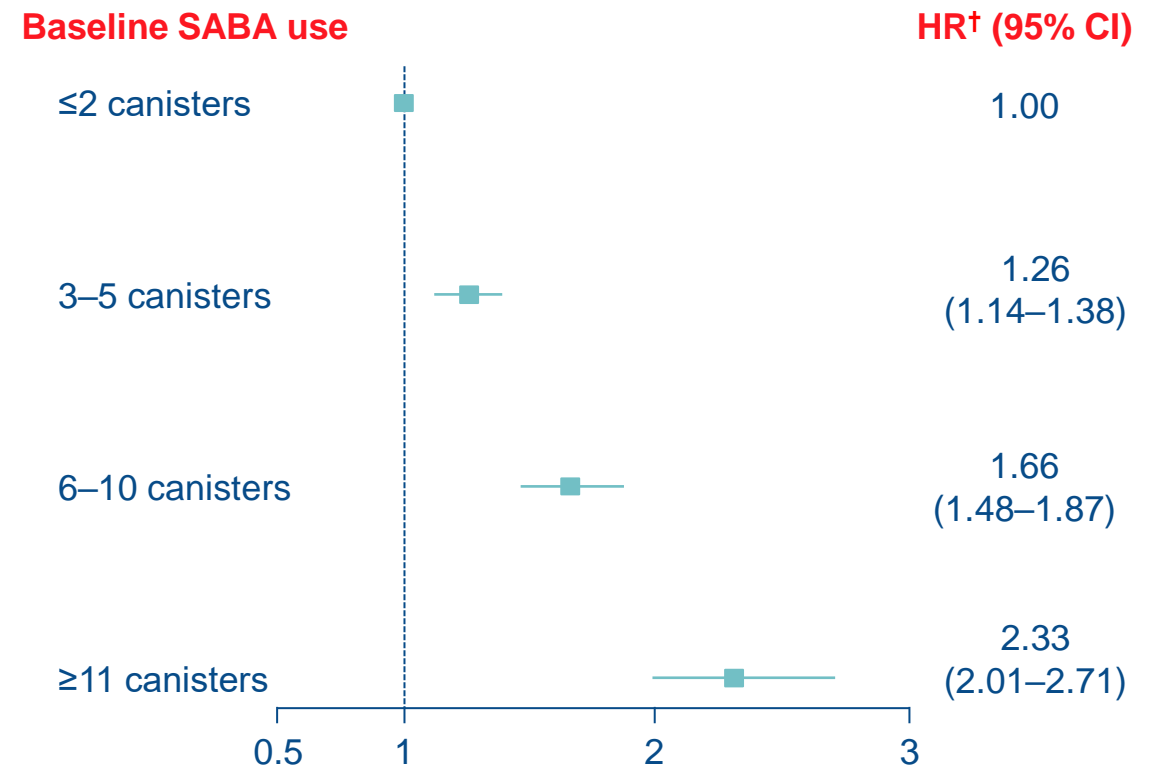
SABINA II: Results from a nationwide cohort study in Sweden (n=365,324)¹

- Patients who collected ≥ 3 SABA canisters/year had increased exacerbations and mortality compared with patients who collected ≤ 2 SABA canisters/year

Association between baseline SABA inhaler use and risk of exacerbations*



Association between baseline SABA inhaler use and risk of all-cause mortality



*Asthma-related exacerbations included hospitalisations, ER visits and/or OCS claims.

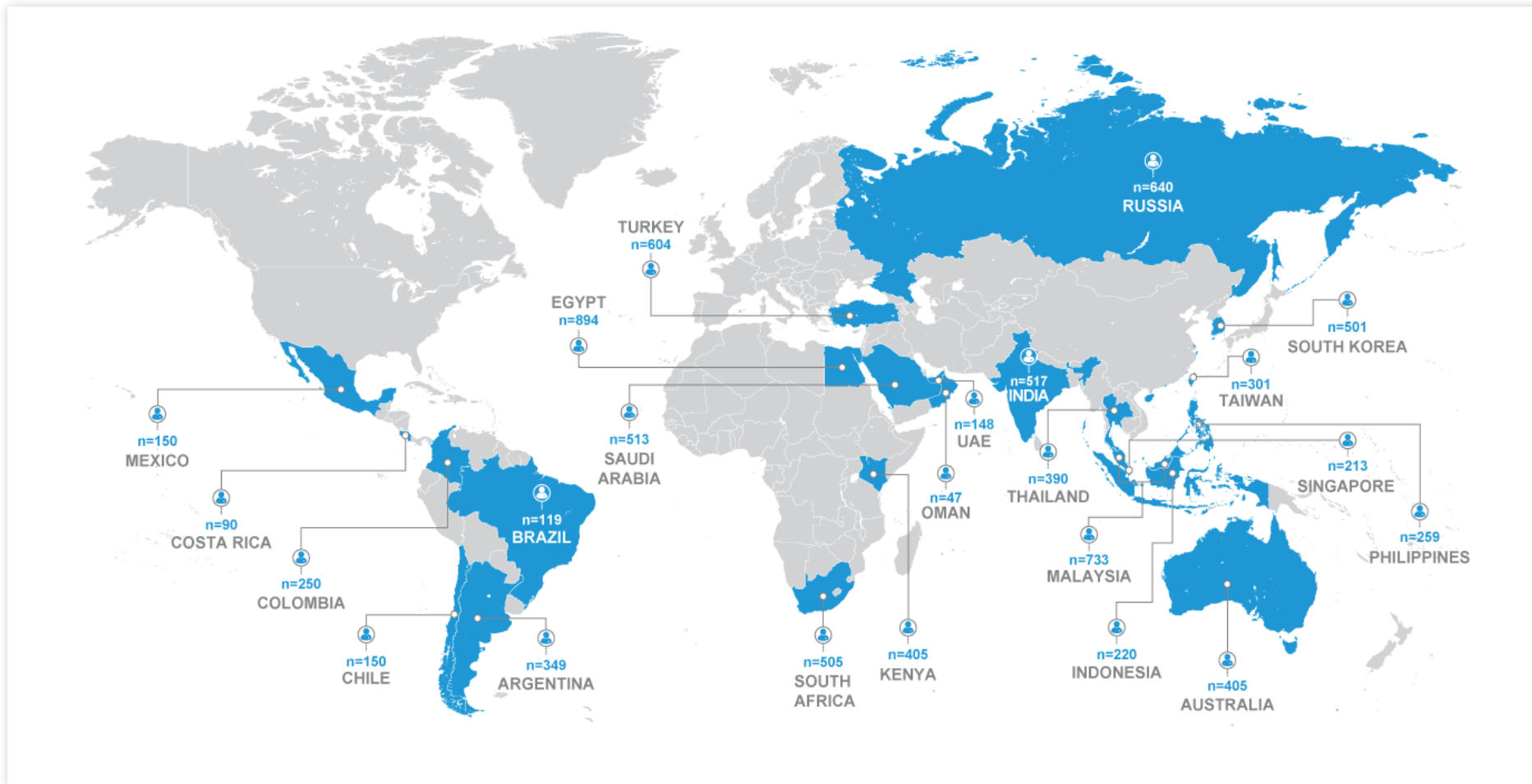
[†]HR adjusted for age at asthma diagnosis, sex, treatment step and comorbidity.

Patients with treatment step 5 during the baseline period were excluded since these patients are regular users of oral corticosteroids.

1. Nwaru BI, et al. *Eur Respir J* 2020; 55(4). doi: 10.1183/13993003.01872-2019.

SABINA III*: First study to assess SABA prescriptions in countries lacking robust national healthcare databases

- An observational, cross-sectional study carried out in 27 countries including over 8,500 patients
 - Results anticipated shortly



*The initial analysis includes data from 23 of the 27 SABINA III countries.

Conclusions



SABINA I and II studies in 5 European countries indicate that approximately **one-third** of patients with asthma **have high SABA use** (≥ 3 canisters/year) across **all severities**



High SABA use is associated with an **increased risk of exacerbations, mortality** and **healthcare utilisation**



Current findings from SABINA I and II show that high SABA use is a **global public health issue** that supports global recommendations that SABA use alone is unsafe and **therefore treatment and policy approaches to asthma need to be changed**



Further results from **SABINA II** and results from **SABINA III** will **provide further insight into global high SABA use patterns**

Acknowledgements and funding

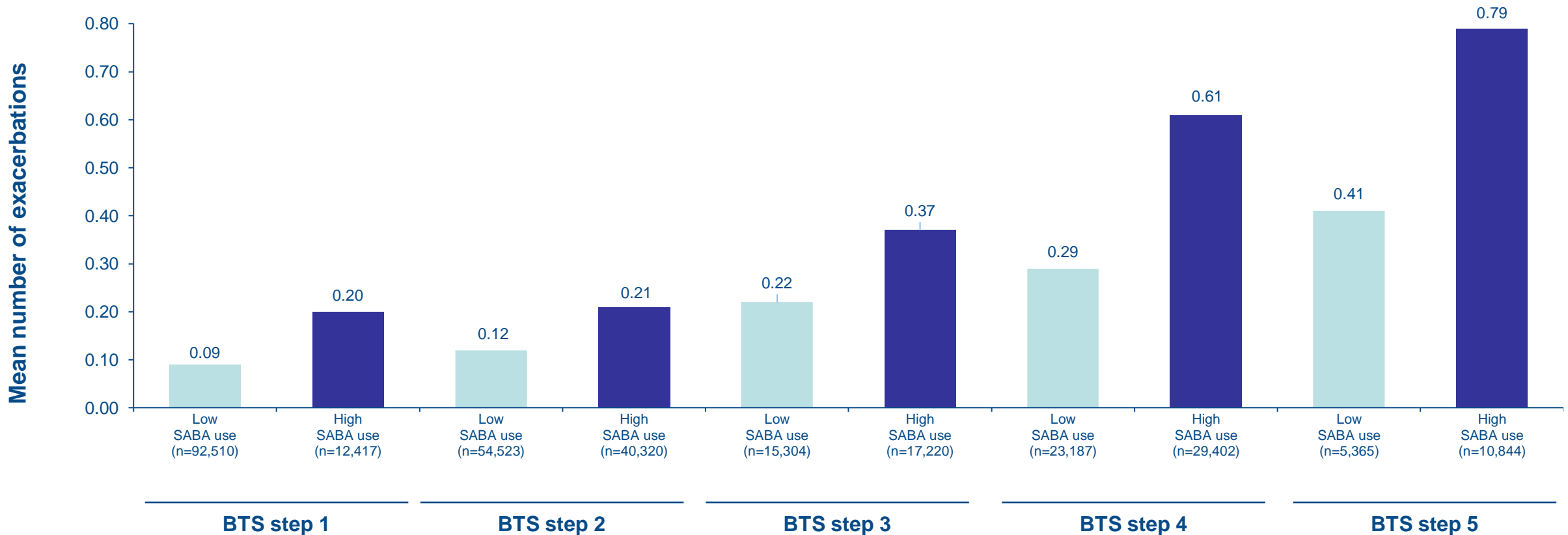
- We would like to acknowledge the researchers and external experts involved in the SABINA programme and all the different teams at AstraZeneca
- The SABINA programme was funded by AstraZeneca



Appendix

SABINA I (UK): Results

Mean number of exacerbations in the first year of follow-up by BTS treatment step and SABA use frequency

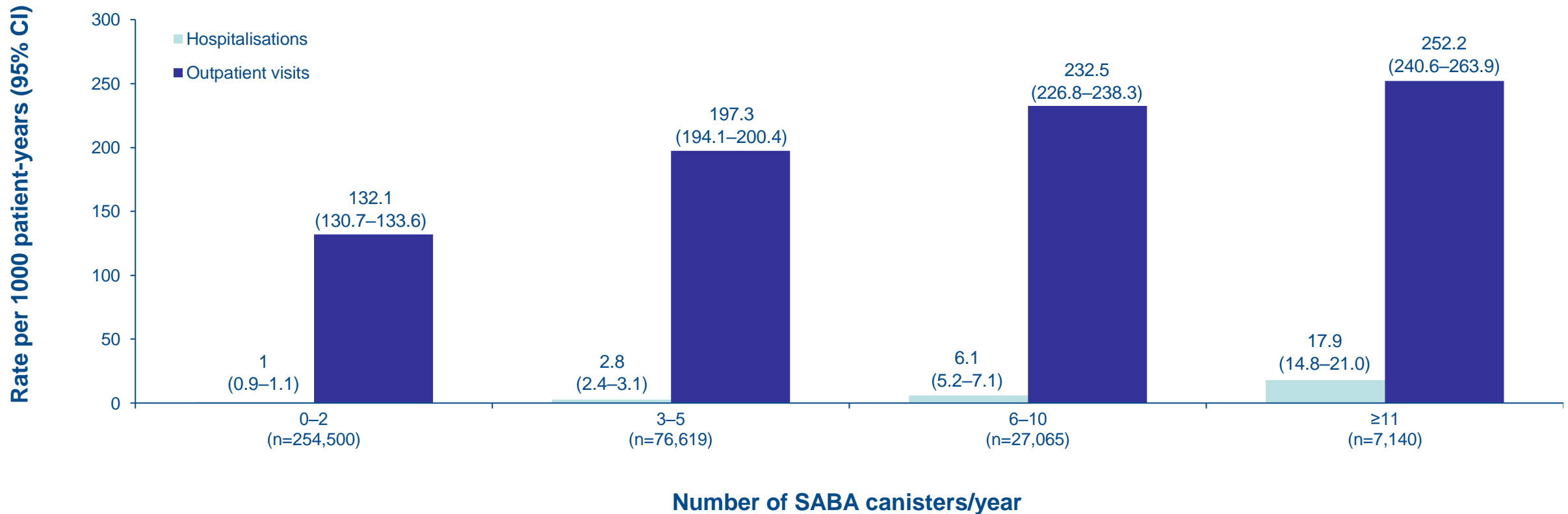


The mean number of exacerbations during the first year of follow-up was 1.7–2.2 times higher among high SABA users than among low SABA users across treatment steps

SABINA II (Sweden): Results¹

- Patients prescribed ≥ 3 SABA canisters/year had increased hospitalisations and outpatient visits compared with patients prescribed 0–2 SABA canisters/year

Asthma-related hospitalisations and outpatient visits during baseline year



1. Nwaru BI, et al. *Eur Respir J* 2020; 55(4). doi: 10.1183/13993003.01872-2019.