

## ABSTRACT

### Overcoming SABA Use and Managing Asthma in Primary Care

Asthma is a heterogeneous lung disease, usually characterised by chronic airway inflammation. In Malaysia, it is estimated that there are about **1.6 to 2 million asthmatics**, and this figure has been increasing over the years<sup>1</sup>. Although evidence-based treatments are available in most countries, asthma control remains suboptimal, and asthma-related deaths continue to be an ongoing concern<sup>2</sup>

Respiratory experts believe that a significant factor in this is the “asthma paradox”, where reliance on a short-acting reliever inhaler, usually a blue inhaler which contains the SABA rescue medication, is perceived by the patient to be controlling the disease, but due to lack of treatment of the underlying inflammation, is putting patients at greater risk of a potentially life-threatening attack.<sup>3</sup> As growing evidence demonstrates that SABA over-reliance increases the risk of asthma-related exacerbations and death<sup>3-6</sup>, a global perspective of SABA prescriptions is needed to grasp the public health burden of SABA over-reliance in the management of asthma<sup>7</sup>.

**Objective:** To discuss the risk of SABA over-reliance and findings of SABINA III study.

**Methods:** As part of the SABA use IN Asthma (SABINA) programme, in this cross-sectional study (SABINA III) of asthma patients ( $\geq 12$  years old), eCRFs collected patient characteristics and context of care data. Multivariate regression models analysed aggregated data to identify determinants of symptom control<sup>8</sup>

**Results:** Of 8351 patients (**732 patients were enrolled for Malaysia**) were recruited (n=6872, specialists; n=1440, primary care), 76.5% had moderate-to-severe asthma and 45.4% experienced  $\geq 1$  severe exacerbation in the past 12 months. **Thirty-eight percent of patients were prescribed  $\geq 3$  SABA canisters and 47% of Malaysia patients were also reported with SABA over-prescriptions.** Prescriptions of 3-5, 6-9, 10-12 and  $\geq 13$  SABA (versus 1-2) were associated with increasingly lower odds of controlled or partly controlled asthma (odds ratio [95% CI]: 0.64 [0.53-0.78], 0.49 [0.39-0.61], 0.42 [0.34-0.51] and 0.33 [0.25-0.45], respectively; n=4597) and higher severe exacerbation rates (incidence rate ratio [95% CI]: 1.40 [1.24-1.58]; 1.52 [1.33-1.74]; 1.78 [1.57-2.02]; 1.92 [1.61-2.29], respectively; n=4612).<sup>8</sup>

**Conclusion:** This study indicates an association between high SABA prescriptions and poor clinical outcomes across a broad range of countries, healthcare settings and asthma severities, providing support for initiatives to improve asthma morbidity by reducing SABA over-reliance. The new GINA 2021 asthma treatment recommendations represent significant shifts in asthma management at Steps 1 and 2 of the 5 treatment steps. The report acknowledges an emerging body of evidence suggesting the non-safety of SABAs overuse in the absence of concomitant controller medications, therefore does not support SABA-only therapy in mild asthma and has included new off-label recommendations such as symptom-driven (as-needed) low dose ICS-formoterol and “low dose ICS taken whenever SABA is taken”.<sup>2</sup>

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