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Asthma Patients' and Physicians' Perspectives on the Burden and Management of Asthma (APPaRENT)

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DISCLOSURES

- This study was funded by GlaxoSmithKline (GSK ID: 212911).
- On behalf of all authors, an audio recording of this poster was prepared by Kenneth R Chapman, who did not receive any payment for this recording.
- The presenting author declares the following real or perceived conflicts of interest during the last 24 months in relation to this presentation: Kenneth R Chapman has received research grant funding, speaker fees, and consulting fees from AstraZeneca, Grifols, GSK, Novartis, Sanofi, and Regeneron; speaker fees and consulting fees from Boehringer Ingelheim and Teva; consulting fees from CSL Behring and Takeda.
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Objectives and methods

INTRODUCTION AND OBJECTIVES

- The 2020 GINA report[1] recommends a stepwise approach to asthma management, including as-needed ICS/formoterol irrespective of GINA step classification and as MART from GINA Step 3, broadening the indication for as-needed ICS/formoterol to include a wider spectrum of patients with asthma.
- The APPaRENT study aims to understand patient and physician attitudes to regular versus MART dosing, and assess global relevance of GINA[1] recommendations in developed and developing nations.

METHODS

Multinational, cross-sectional online survey of patients and physicians between July and August 2020*

Included countries:

Australia
Canada
China
Philippines

Patients

Patients ≥18 years of age with self-reported history of a past/current physician-diagnosed asthma

13,203–23,024
patients invited

300–308
surveys completed

Physicians

Primary care physicians† with ≥3 years in clinical practice and responsible for care of ≥4 patients with asthma monthly

1131–3117
physicians invited

200–202
surveys completed

*Patients and physicians were sampled and recruited from high-quality, non-probability panels; †general practice, family medicine, and/or internal medicine physicians. Canada also included respirologists/respiratory therapists.
GINA, Global Initiative for Asthma; ICS, inhaled corticosteroid; MART, maintenance and reliever therapy

1. Global Initiative for Asthma - Global strategy for asthma management and prevention. https://ginasthma.org/2020 (accessed 16 March 2021).
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Demographics

Patients	Australia (N=305)	Canada (N=308)	China (N=300)	Philippines (N=303)
Female, n (%)*	177 (58.0)	202 (65.6)	170 (56.7)	176 (58.1)
Age, years, mean (SD)	55.7 (15.2)	49.5 (14.9)	36.6 (8.5)	30.2 (10.4)
Current smoker/vaper in household, n (%)	67 (22.0)	92 (29.9)	155 (51.7)	169 (55.8)

Physicians	Australia (N=200)	Canada (N=202)	China (N=201)	Philippines (N=200)
Male, n (%)	134 (67.0)	125 (61.9)	149 (74.1)	70 (35.0)
Age, years, mean (SD)	*n=199* 48.6 (10.3)	*n=202* 46.6 (10.8)	*n=201* 41.6 (6.4)	*n=200* 48.3 (8.8)
Treatment setting, n (%)				
Government sponsored clinic, doctor's office, hospital, or hospital-based facility	4 (2.0)	41 (20.3)	183 (91.0)	79 (39.5)
Private clinic or doctor's office	192 (96.0)	150 (74.3)	3 (1.5)	92 (46.0)

- Most patients were female, whilst mean age varied between countries.
- Proportion of smokers/vapers in the household was generally high, particularly in China and the Philippines.
- The majority of physicians were male in all countries except for the Philippines.
- Most common treatment setting varied by country.

*P-value (determined by Chi-square test for categorical data and ANOVA means test for continuous data) did not indicate significant variation ($P \geq 0.05$) between countries; significant variation between countries was observed for all other sociodemographic characteristics.
N=total number of patients included in the survey. n=number of patients who responded to the question.
ANOVA, analysis of variance; SD, standard deviation
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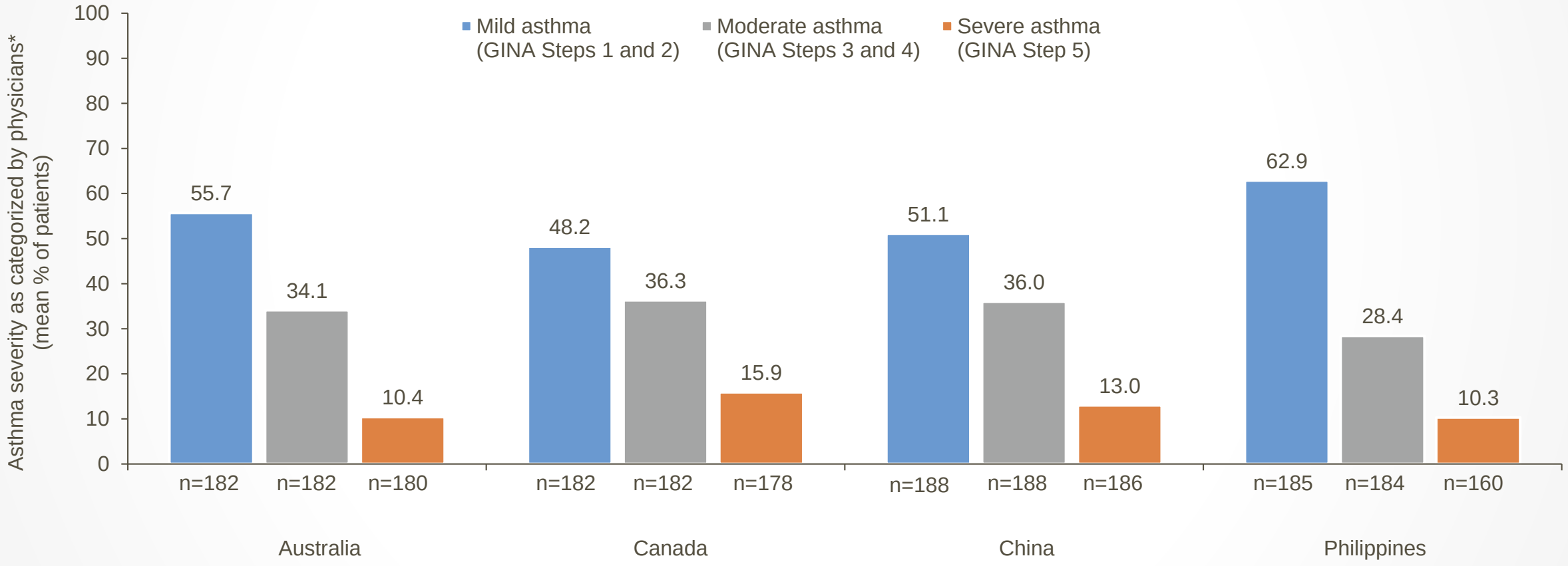
Physicians classed most of their patients as having mild or moderate asthma



*Physician question: Approximately what percent of your asthma patients have mild asthma (GINA Step 1 and 2)/moderate asthma (GINA Step 3 and 4)/severe asthma (GINA Step 5)?
For all data reported here, *P*-values (determined by ANOVA test) indicated significant variation between countries ($P<0.05$). n=number of patients who responded to the question.
ANOVA, analysis of variance; GINA, Global Initiative for Asthma
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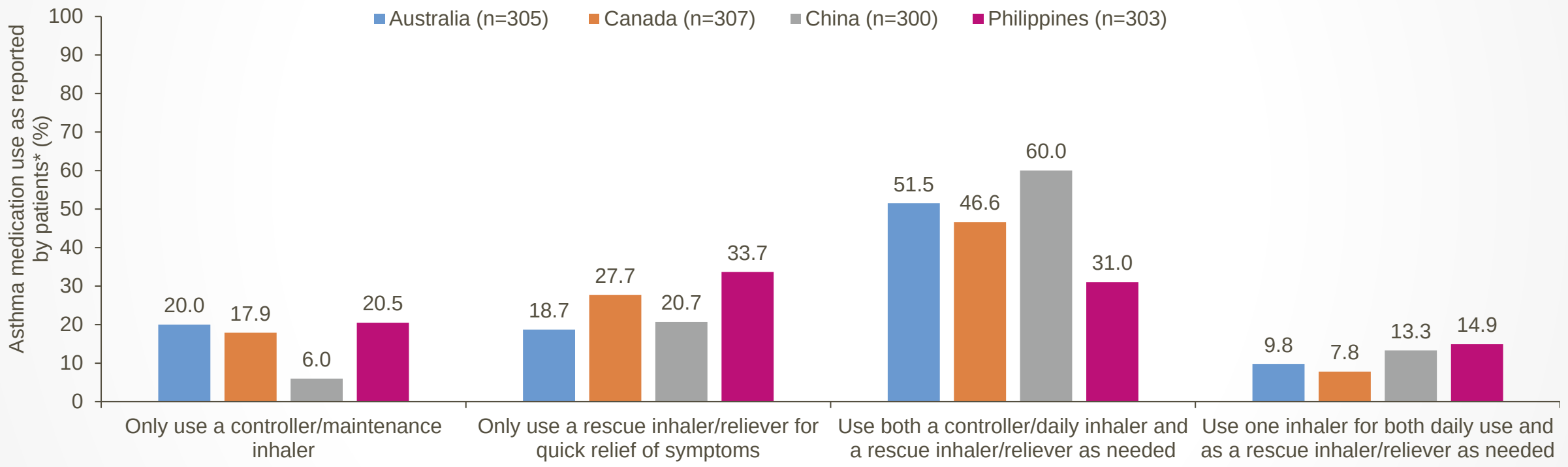
Most patients (66–81%) reported using regular maintenance therapy with or without as-needed reliever therapy, of whom only 8–15% were using MART



*Thinking about your asthma medication, do you use a controller/maintenance inhaler, a rescue inhaler/reliever, both a controller/maintenance inhaler and rescue inhaler/reliever, or one inhaler that is for both control and rescue?
For all data reported here, *P*-values (determined by Chi-square test) indicated significant variation between countries ($P<0.05$).
n=number of patients who responded to the question.
MART, maintenance and reliever therapy
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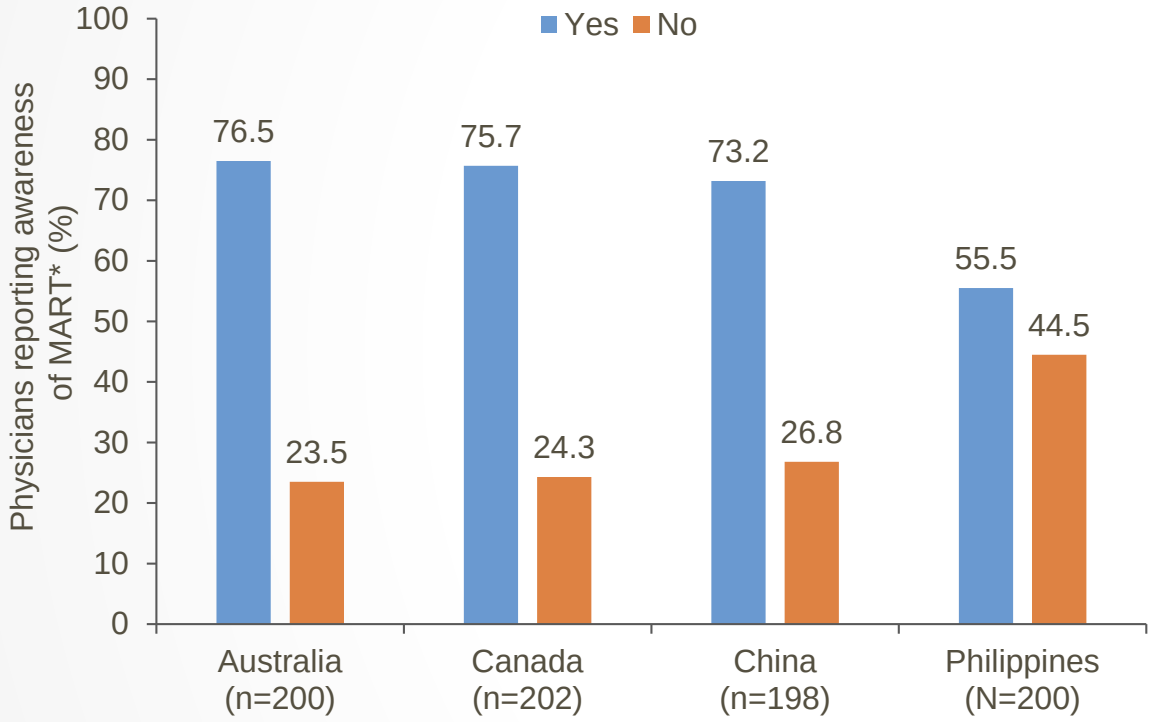
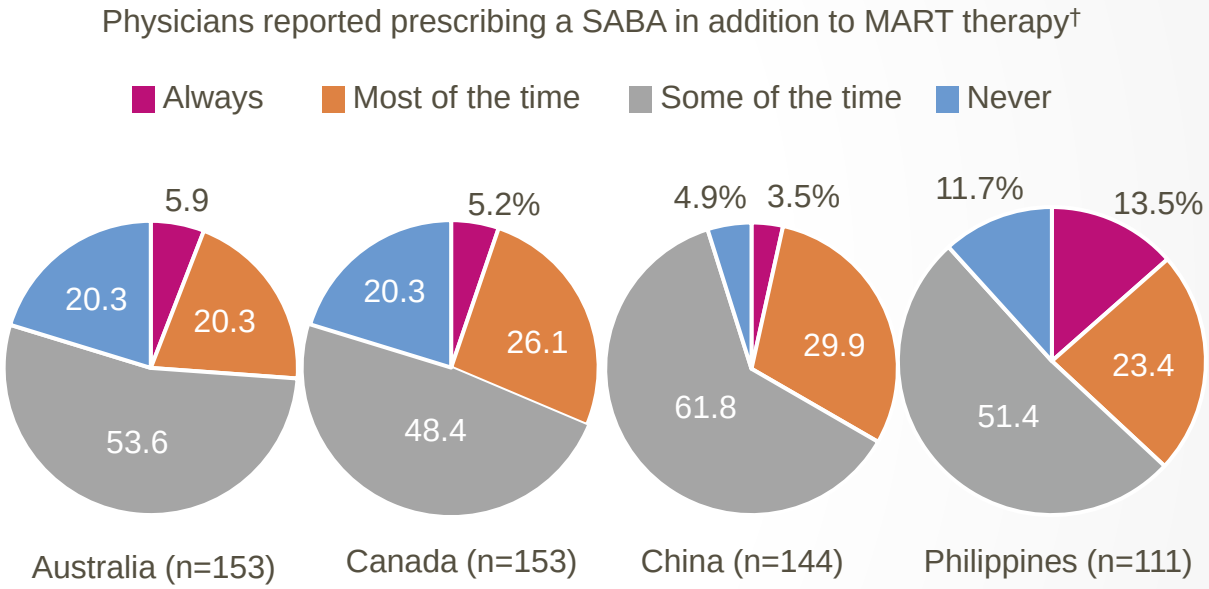
Despite 55–75% of physicians reporting awareness of MART dosing, the majority reported prescribing a SABA alongside MART at least some of the time





- Only ~20–50% of patients were aware of the MART dosing approach.

*Physician question: are you aware of the MART dosing approach for asthma?; †physician question: when you prescribe ICS/LABA as MART for asthma, how often do you also prescribe a short-acting β_2-agonist or a short-acting bronchodilator as a reliever?
For all data reported here, *P*-values (determined by Chi-square test) indicated significant variation between countries ($P<0.05$). n=number of patients who responded to the question.
MART, maintenance and reliever therapy; SABA, short-acting β_2-agonist
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Physicians and patients both considered symptom control to be very important

Physicians generally rated symptom control over exacerbation reduction as their main treatment goal for patients at GINA Steps 1–2 (29.3–45.1% vs 9.3–15.4%) and GINA Steps 3–4 (24.2–43.6% vs 20.9–30.2%)*

Physicians also prioritized symptom severity (29.4–44.1%) over exacerbation risk (18.0–29.2%) when prescribing daily maintenance medication†

Across all countries, approximately 50–90% of patients indicated that it was 'very important' that their inhaler treats symptoms such as chest tightness, coughing, and shortness of breath‡

*Physician question: What are the goals that you aim to attain in your patients with mild asthma (GINA Steps 1 and 2) / moderate asthma (GINA steps 3 and 4)?; †physician question: What is THE MOST important factor to you when prescribing controller/maintenance medications?; ‡patient question: How important is it that your inhaler treats chest tightness/shortness of breath/coughing?
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Conclusions

- Most patients used regular maintenance therapy with or without as-needed reliever therapy, in line with global recommendations.
- There appears to be limited understanding and implementation of MART, based on the low proportion of patients reporting MART use and the high proportion of physicians prescribing SABA alongside MART dosing.
- Most physicians and patients considered symptom relief to be very important.
- Taken together, our results suggest that practical strategies are required to implement GINA recommendations effectively in real-world clinical practice.

GINA, Global Initiative for Asthma; MART, maintenance and reliever treatment; SABA, short-acting β2-agonist

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CO-AUTHORS' DISCLOSURES

- L An and J Li have no conflicts of interest to disclose. S Bosnic-Anticevich has received consulting fees, honorarium, and research funding from Teva, AstraZeneca, Boehringer Ingelheim, GSK, and Mylan. CM Campomanes has received honorarium from AstraZeneca, Novartis, Boehringer Ingelheim, UAP, and OEP. K Lavoie has received consulting fees/speaker fees from GSK, Boehringer Ingelheim, Janssen, Bausch, Astellas, Novartis, AstraZeneca, and Sojecci Inc. J Espinosa, P Jain and AK Butta are employees of and own stocks/shares in GSK.