Demographic and clinical characteristics of patients with severe asthma in Japan and South Korea

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Disclosures

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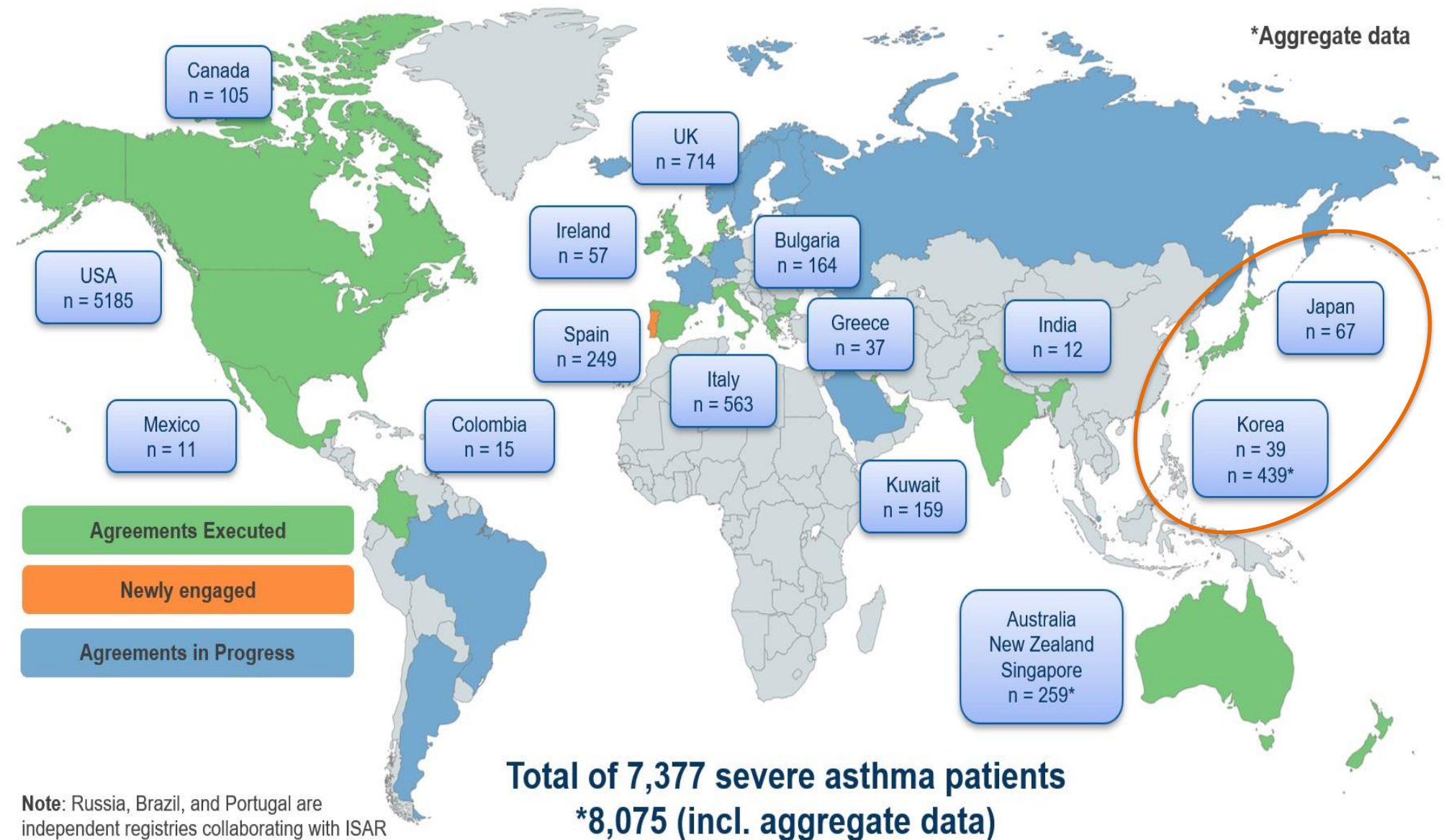
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Rationale

- Regional and/or national severe asthma registries provide valuable country-specific information.

- Inter-country comparisons are hindered by fundamental differences in data collected, making cross comparisons difficult

- What is missing?:

  - a worldwide registry,

  - bringing all severe asthma data together in a cohesive way, under a single umbrella,

  - based on standardized data collection protocols,

  - permitting data to be shared seamlessly.

Introducing the International Severe Asthma Registry (ISAR)[1]

- ISAR is the first global severe asthma registry

- Collects patient-level, pseduonymized, longitudinal, real-life, standardized, high-quality data, using a set of core variables[2]

- Currently collaborating with 29 countries worldwide[3]
  - Asia: Taiwan, India Singapore, **Japan and South Korea**

*Aggregate data

Canada
n = 105

UK
n = 714

Ireland
n = 57

Bulgaria
n = 164

USA
n = 5185

Spain
n = 249

Greece
n = 37

India
n = 12

Japan
n = 67

Italy
n = 563

Korea
n = 39
n = 439*

Mexico
n = 11

Colombia
n = 15

Kuwait
n = 159

Australia
New Zealand
Singapore
n = 259*

Agreements Executed

Newly engaged

Agreements in Progress

Note: Russia, Brazil, and Portugal are independent registries collaborating with ISAR

Total of 7,377 severe asthma patients
*8,075 (incl. aggregate data)

1. http://isaregistries.org/; 2. Bulathsinhala et al, JACI Pract 2019; 3. ISAR Study Group Chest 2019; In press

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Methods

Patients:

- From severe asthma secondary and tertiary care centres

- Aged ≥ 18 years old

- On GINA[1] Step 5 treatment or with uncontrolled asthma on GINA[1] Step 4

Data: what, where & when

- What: Demographic & clinical data

- Where: From centres in Japan and Korea

- When: Collected between May 2018 and Sept 2019

1. GINA 2018, https://ginasthma.org/wp-content/uploads/2018/04/wms-GINA-2018-report-tracked_v1.3.pdf
GINA: Global Initiative for Asthma

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Results: demographic & clinical characteristics (new data)

Characteristic	Japan (n=67)	South Korea (n=39)	ISAR Global[1] (n=4990)
Age, yrs, Mean (SD)	63.9 (14.0)	52.3 (15.1)	**55.0 (15.9)**
BMI, Mean (SD) Normal (≥ 18.5 - <25), n (%)	24.8 (4.2) 35 (55.5)	24.6 (3.6) 18 (47.3)	 **1345 (27.4)**
Age of asthma onset, yrs Mean (SD)	39.3 (16.2)	38.3 (17.0)	**30.7 (17.7)**

Smoking status, n (%)
    Ever smoked
    Non-smoker
	
	20 (31.7)
	43 (68.2)
		
		12 (31.5)
		26 (68.4)
			
			1950 (39.3)
			2997 (60.5)

Exacerbations, mean (SD)	1.7 (2.3)	0.7 (1.5)	**1.7 (2.7)**
PB FEV_1 (% predicted), Mean (SD)	86.7 (23.7)	77.2 (21.3)	**75.8 (17.1)**
% Reversibility*, Mean (SD)	5.2 (5.2)	7.2 (5.4)	**GINA 4: 6.8 (7.4)** **GINA 5: 7.1 (8.5)**
% patients with FEV_1/FVC<0.7	39.6% (n=19/48)	52.6% (n=20/38)	**GINA 4: 39.4%** **GINA 5: 34.6%**

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Results: Biomarkers
New data hot off the press

Characteristic	Japan (n=67)	South Korea (n=39)	ISAR Global[1]
BEC (x 109/L), mean (SD)	0.48 (0.50)	0.49 (0.56)	
≤0.30, n (%)	22 (46.8)	17 (56.7)	1923 (51.4)
>0.30, n (%)	**25 (53.2)**	**13 (43.3)**	**1813 (48.5)**
FeNO (ppb)			
<25, n (%)	17 (37.8)	7 (38.9)	934 (43.1)
≥25, n (%)	**28 (62.2)**	**11 (61.1)**	**1234 (56.9)**

Results: clinical characteristics

Co-morbidities

	AR	CRS	Eczema	NP*
Japan (n=67)	74.1	48.2	25	19.5
South Korea (n=39)	79.5	25.6	12.9	15.8
ISAR (n=4294)	49.4	21.4	9.6	7.3

Asthma control

	Japan (n=67)	South Korea (n=39)	ISAR (n=2467)
Well controlled	25	48.3	23.3
Partly controlled	46.4	41.4	19.6
Uncontrolled	28.6	10.3	57.2

Asthma Medication

	Maintenance OCS	Anti-IgE	Anti-IL5
Japan (n=40)	57.5	0.8	42.5
South Korea (n=16)	56.3	25	25
ISAR GINA 5 (n=1740)	48.8	36.7	36.1
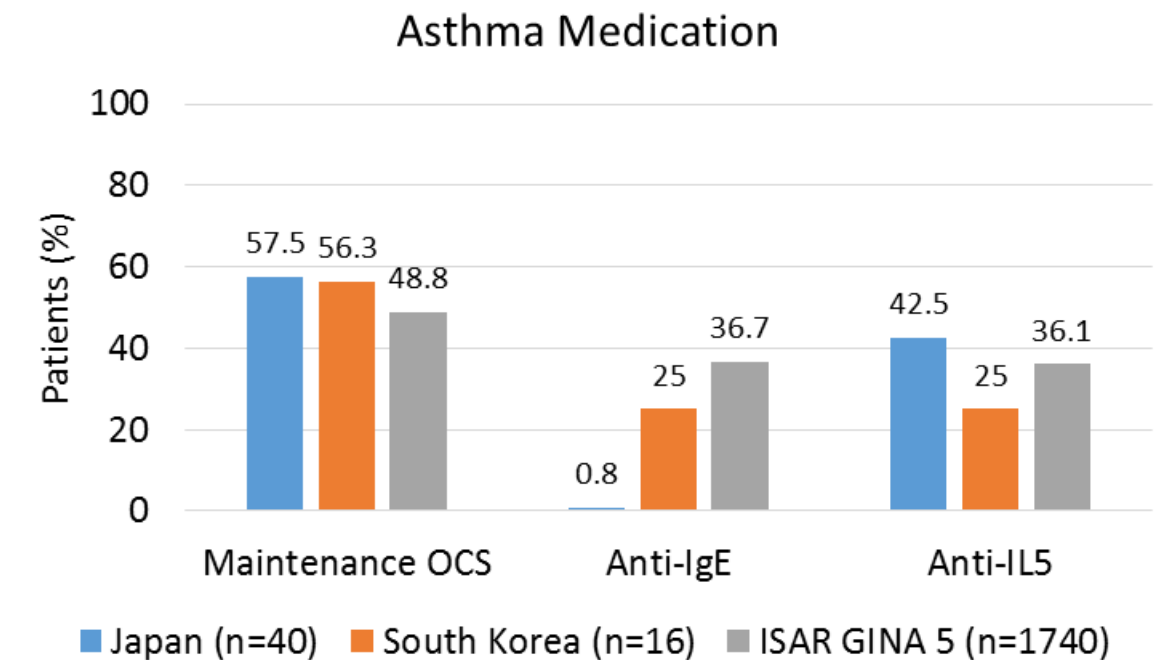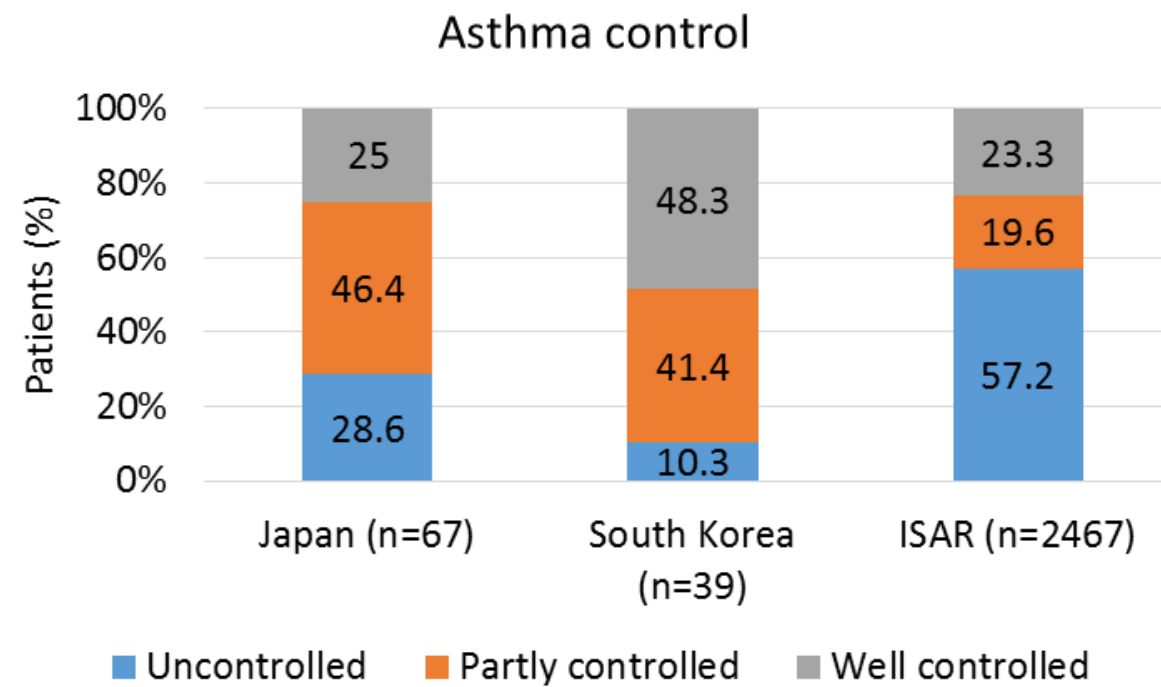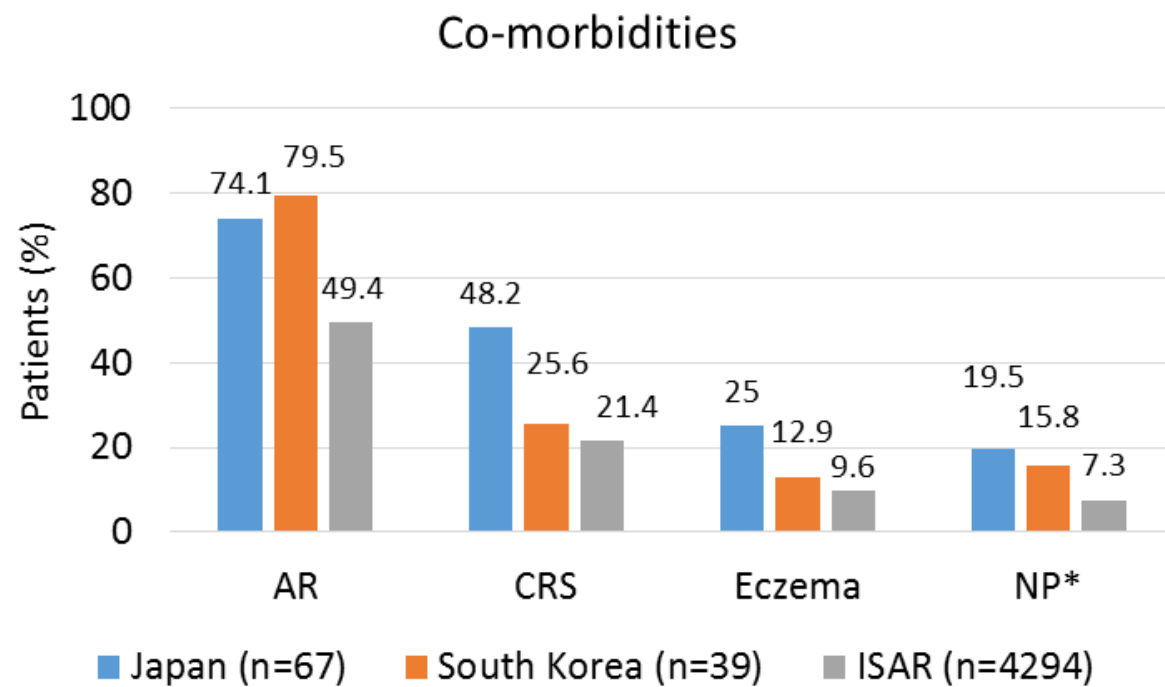
- **JP:** More patients with CRS, AD & NP vs SK
- **JP & SK**: greater co-morbidity burden vs ISAR Global

- **JP**: More patients with uncontrolled asthma vs SK
- **JP & SK**: less patients with uncontrolled asthma vs ISAR Global
- Note: consider treatment landscape

- High Maintenance OCS burden in JP, SK and ISAR Global
- Similar Biologic (Anti-IgE or anti-IL5) utilization in JP & SK
  - SK: Bx not reimbursed
  - JP: Bx partially reimbursed
- Note: many patients still had high BEC

AR: allergic rhinitis; CRS; chronic rhinosinusitis; AD: atopic dermatitis; NP: nasal polyps; OCS: maintenance oral corticosteroids; BEC: blood eosinophil count; JP: Japan; SK: South Korea; ISAR: International Severe Asthma Registry; Bx: biologics; * non-missing data – JP: n=46; SK: n=38

Conclusions

RESEARCH REQUESTS AND PROPOSALS

ISAR

Registry ∨   Collaborations ∨   Research ∨   Dissemination ∨   News & Events

to be
suffer

Research / Proposal Question *

Funding source

Proposal documentation

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SK: South Korea; JP: Japanese; CRS: chronic rhinosinusitis; NP: nasal polyps; OCS: oral corticosteroid; BEC: blood eosinophil count; FeNO: fractional exhaled nitric oxide; ISAR: International Severe Asthma Registry; AR: allergic rhinitis