

Current Trend of Hypertension Practice
by Specialists and non-Specialists
in the Japanese Primary Care Settings
— J-DOME Study

October 14, 2022

Narumi Eguchi¹⁾, Kei Asayama²⁾, Tomohiro Katsuya³⁾
Yutaka Hatori⁴⁾, Masaaki Miyakawa⁵⁾, and Mitsuhiko Noda⁶⁾

1) Japan Medical Association Research Institute, 2) Teikyo University, 3) Katsuya Clinic, 4) Hatori Clinic,
5) Japan Medical Association, 6) International University of Health and Welfare Ichikawa Hospital

ISH 2022 Kyoto Japan

Disclosure of COI

Narumi Eguchi, Kei Asayama, Tomohiro Katsuya
Yutaka Hatori, Masaaki Miyakawa, and Mitsuhiko Noda

The authors have no Conflict of Interest for this presentation

Background of J-DOME Registry



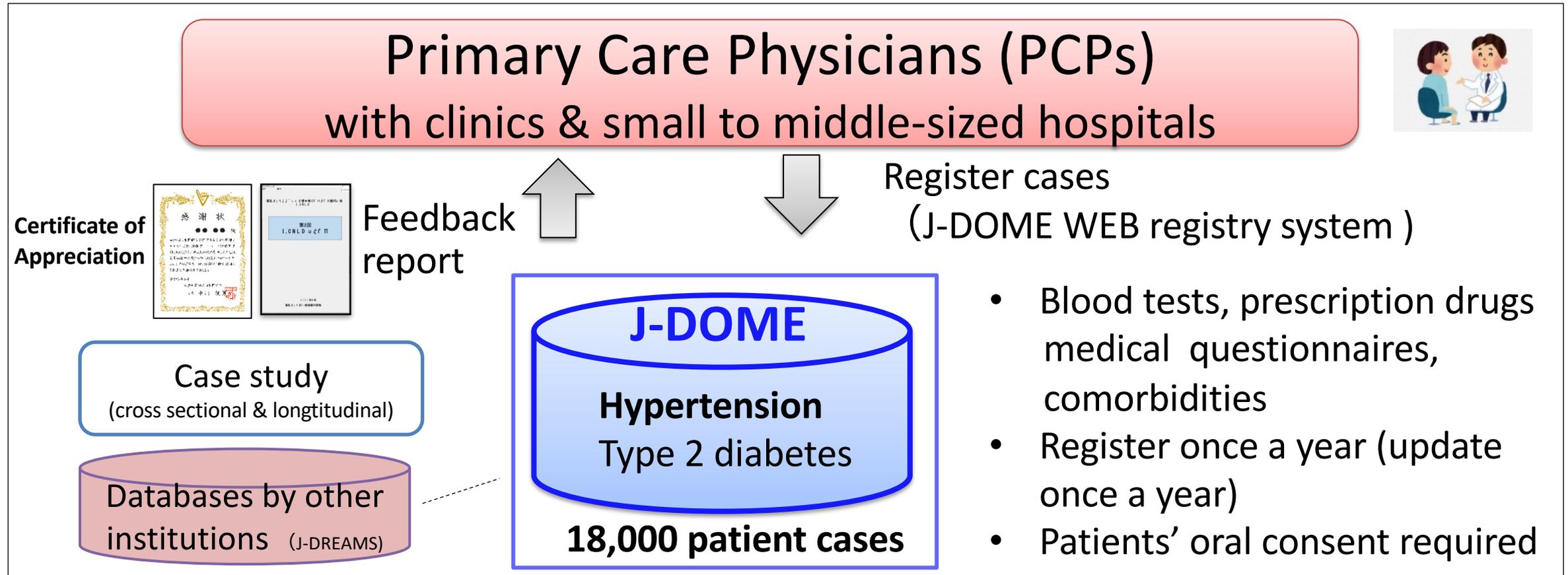
- Japan is a super aged country with increasing chronic disease patients
- Role of primary care physicians is growing
- Information on primary care practice was not readily available in Japan
- **Japan Medical Association¹ started J-DOME², the first nationwide primary care registry in Japan in 2018**



1: Japan Medical Association (JMA) is the largest professional association of licensed physicians in Japan with 174,000 membership

2: J-DOME : Japan Medical Association Database Of Clinical Medicine

Overview of J-DOME



- Provide the participating PCPs with feedback report
- Support and strengthen primary care practice using the data

Objectives of This Study

- To understand the current hypertension practice by primary care physicians
- To compare the patient cases by hypertension specialists✕ with those by non-specialists

✕hypertension specialists here are the specialists certified by the Japanese Society of Hypertension.

Patients' background and acuity are different between them.

Data:

- A total of 3620 patients with either hypertension or Type 2 diabetes were registered in 2021
- Of those,
 - 2304 are hypertension cases with office blood pressures (BPs) including 657 hypertension specialists' cases and 1647 non-specialists' cases

Methods :

- **Office BP** and most recent self-measured **home BP** are used
- Other items including **patient characteristics, blood test results, medications, patient education** and **salt consumption** are analyzed and compared between the two groups (hypertension specialists' cases and hypertension non-specialists' cases)

Results – Baseline

- Average age: 70.5 years old in specialists' cases
70.2 years old in non-specialists' cases.
- The ratio of hypertension family history:
56.5% in the specialists' cases
35.3% in the non-specialists' cases.



	Hypertension Specialists' Cases			Hypertension Non-specialists' Cases		
	Average	SD	n	Average	SD	n
Age (years)	70.5	12.33	657	70.2	11.16	1645
BMI (kg/m ²)	25.1	4.17	657	25.1	4.03	1639
Duration of hypertension (years)	12.2	10.07	448	11.7	8.48	1073
	%			%		
Gender (Female%)	47.5%			42.9%		
Hypertention family history (%)	56.5%			35.3%		
Smoking ratio (%)	9.4%			12.1%		

p<0.001

Results – BPs



- The average office BP :
134.9/75.9 mmHg in the specialists' cases
134.9/75.7 mmHg in the non-specialists' cases
- The average home BP:
125.6/74.5 mmHg in the specialists' cases
128.0/75.9 mmHg in the non-specialists' cases

	Hypertension Specialists' Cases			Hypertension Non-specialists' Cases			
	Average	SD	n	Average	SD	n	
Systolic Office BP (mmHg)	134.9	17.34	657	134.9	17.61	1647	
Diastolic Office BP (mmHg)	75.9	12.10	657	75.7	11.80	1647	
Systolic Home BP (mmHg)	125.6	11.89	476	128.0	10.86	761	p<0.01
Diastolic Home BP (mmHg)	74.5	9.75	476	75.9	9.83	761	p<0.05
HbA1c (%)	6.1	0.80	559	6.5	1.03	1557	p<0.001

- The number of patient cases with home BPs is limited.

- Ratio of office systolic **BP ≥ 140 mmHg** :
36.1% in the specialists' cases
33.6% in the non-specialists' cases



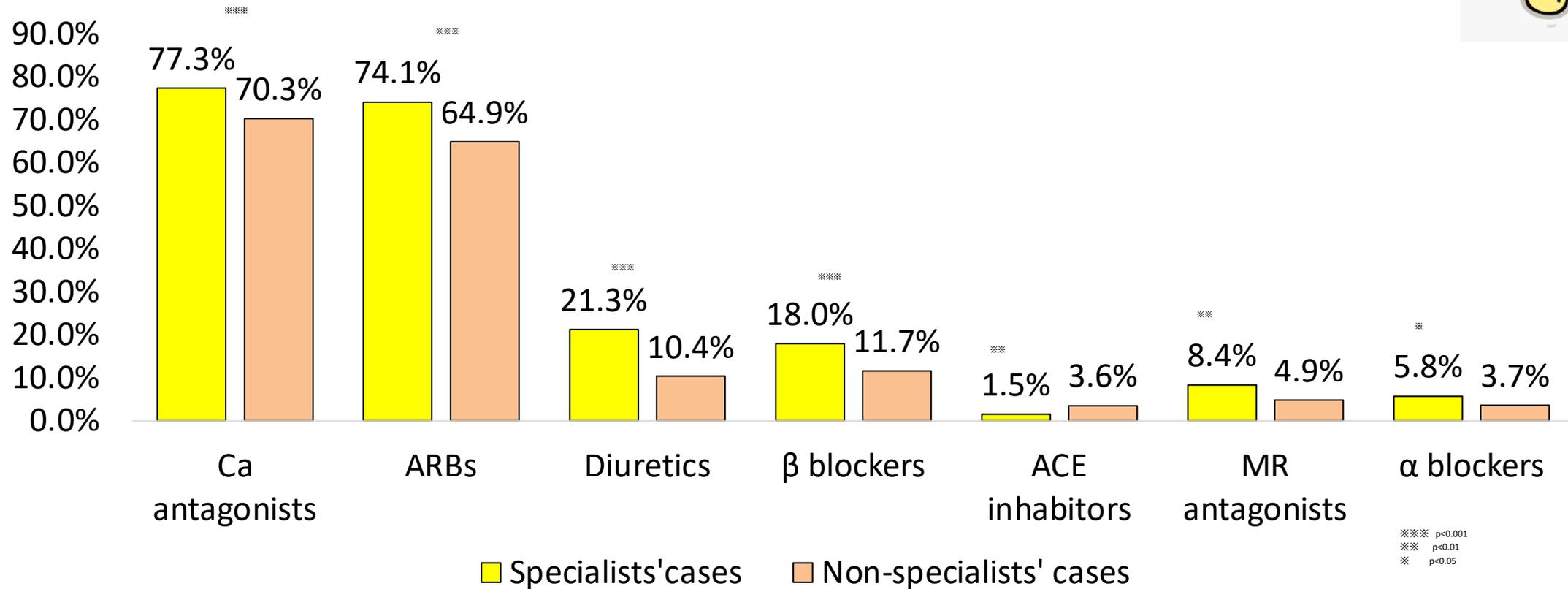
	Hypertension Specialists' Cases	Hypertension Non-specialists' Cases
Office Systolic BP ≥ 140 mmHg (%)	36.1%	33.6%
Office Diastolic BP ≥ 90 mmHg (%)	14.0%	11.9%

Results – Medications

Prescribed antihypertensive medications(seven categories)



Prescribed Antihypertensive Medication
—Specialists' cases and non-specialists' cases (n=2304)



Number of Prescribed Medications



- Number of prescribed medications :
Average 2.1 medications in the specialists' cases
Average 1.7 medications in the non-specialists' cases

Number of hypertensive prescriptions

Hypertension Specialists' Cases			Hypertension Non-specialists' Cases		
Average	SD	n	Average	SD	n
2.1	1.01	657	1.7	0.88	1647

p<0.001

Sodium Education and Consumption

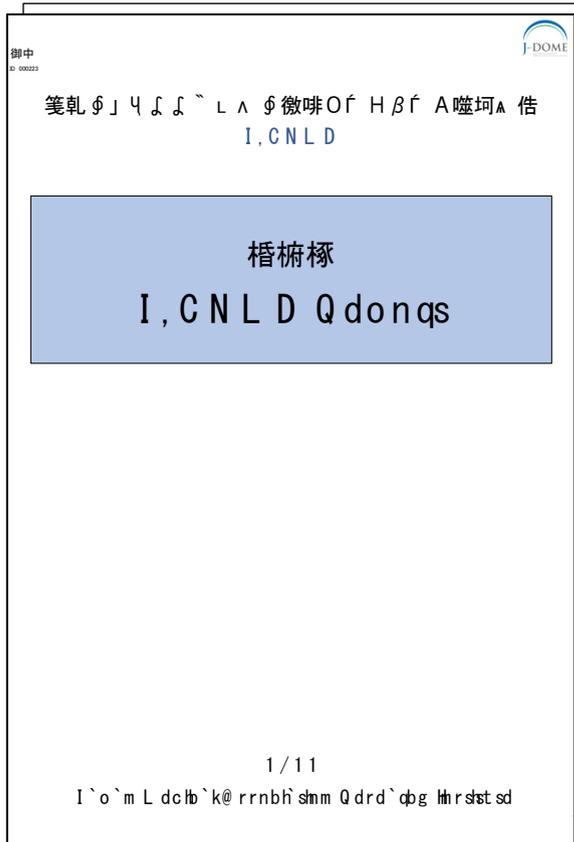


- Reducing sodium is expected to lower BPs
- Ratio of patients who received sodium education
91.7% – Patients with specialists **79.7%** – Patients with non-specialists
- Average sodium consumption
9.0 g /day – Specialists' cases **10.0 g/day** – Non-specialists' cases

	Hypertension Specialists' Cases		Hypertension Non-specialists' Cases		
Sodium education (% of Yes)	91.7%	n=590	79.7%	n=1476	p<0.001
Sodium consumption (g/day)	9.0 (±2.46)	n=178	10.0 (±2.67)	n=67	p<0.05

Information for PCPs – J-DOME Report

- An annual report with the analyses of his/her practice is sent to every participating physician



		Your Patient Cases		All Total		Cases by Non-specialists		Cases by Sepcialists	
Office SBP 1st (mmHg)									
Over 130	2020	47.8	%	60.2	%	58.0	%	65.4	%
	2021	47.7	%	53.6	%	50.7	%	60.6	%
Over 140	2020	28.3	%	30.1	%	26.6	%	38.2	%
	2021	25.0	%	30.3	%	27.2	%	37.6	%
n		55		1,085		758		327	
Office DBP 1st (mmHg)									
Over 80	2020	26.1	%	32.2	%	27.7	%	42.8	%
	2021	23.9	%	31.1	%	28.6	%	36.7	%
						7.2 %		13.8 %	
						7.5 %		17.7 %	
						758		327	

		Your Patient Cases		All Total		Cases by Non-specialists		Cases by Sepcialists	
		n = 55		n = 1,396		n = 819		n = 577	
		Average	SD	Average	SD	Average	SD	Average	SD
BMI (kg/m ²)	2020	24.8	3.4	25.3	4.1	25.4	4.1	25.3	3.9
	2021	24.7	3.4	25.2	4.1	25.3	4.2	25.2	4.0
Office BP (mmHg)	SBP 2020	130.4	15.1	133.6	15.2	132.3	14.8	136.4	15.9
	2021	129.8	16.7	132.6	16.8	131.5	16.5	135.2	17.4
	DBP 2020	73.3	10.8	74.1	11.3	72.8	11.0	77.2	11.6
	2021	72.8	12.8	73.8	12.0	72.8	11.4	76.2	13.0
Home BP (mmHg)	SBP 2020	118.8	11.3	125.6	12.2	127.0	12.6	124.7	11.8
	2021	119.1	11.9	124.3	12.1	126.2	11.9	122.8	12.0
	DBP 2020	71.8	9.5	74.0	9.9	73.8	10.0	74.1	9.8
	2021	72.5	9.3	72.8	9.6	72.3	10.1	73.2	9.3



- **Office BP** and other essential characteristics are **similar** between specialists' and non-specialists' cases
- We have **home BP** but the number of registrations is still limited. Further home BP promotion may be needed
- There are evident differences in hypertensive **medications** between the two groups
- **Sodium education ratio** and **sodium consumption** are also different between the two groups

- Our study is still ongoing but it is the first attempt in the primary care setting
- We would expect providing analyses for both specialists and non-specialists will be useful and informative for their practice

Acknowledgement

We would like to express our sincere gratitude to
the medical institutions and doctors
who are participating in the J-DOME study
during the repeating COVID-19 waves.

Thank you for your attention!



<https://www.jdome.jp/>