VASA-GLOBAL DIALYSIS ACCESS FORUM

Access Excellence.

MAY 20-22, 2026 • HILTON SALT LAKE CITY CENTER • SALT LAKE CITY, UTAH

WELCOME *To the*

2026 SYMPOSIUM

Updates in Dialysis Access Care in Japan

Toshihide Naganuma

The Japanese Society for Dialysis Access (JSDA)

VASA2026

COI Disclosure

Osaka Metropolitan University
Toshihide Naganuma

There are no companies or other entities with which I have a conflict of interest (COI) that should be disclosed in connection with this presentation.

Today's Agenda

1) Background of VA Management in Japan

2) Characteristics of Japan's Health Insurance System

3) The Current Use of DCB in Japan

4) The widespread use of ultrasonography

Today's Agenda

1) Background of VA Management in Japan

2) Characteristics of Japan's Health Insurance System

3) The Current Use of DCB in Japan

4) The widespread use of ultrasonography

1）Approximately 90% are AVFs, and most are located in the forearm

2）The obesity rate is low, and because the blood vessels are superficial, early puncture is possible

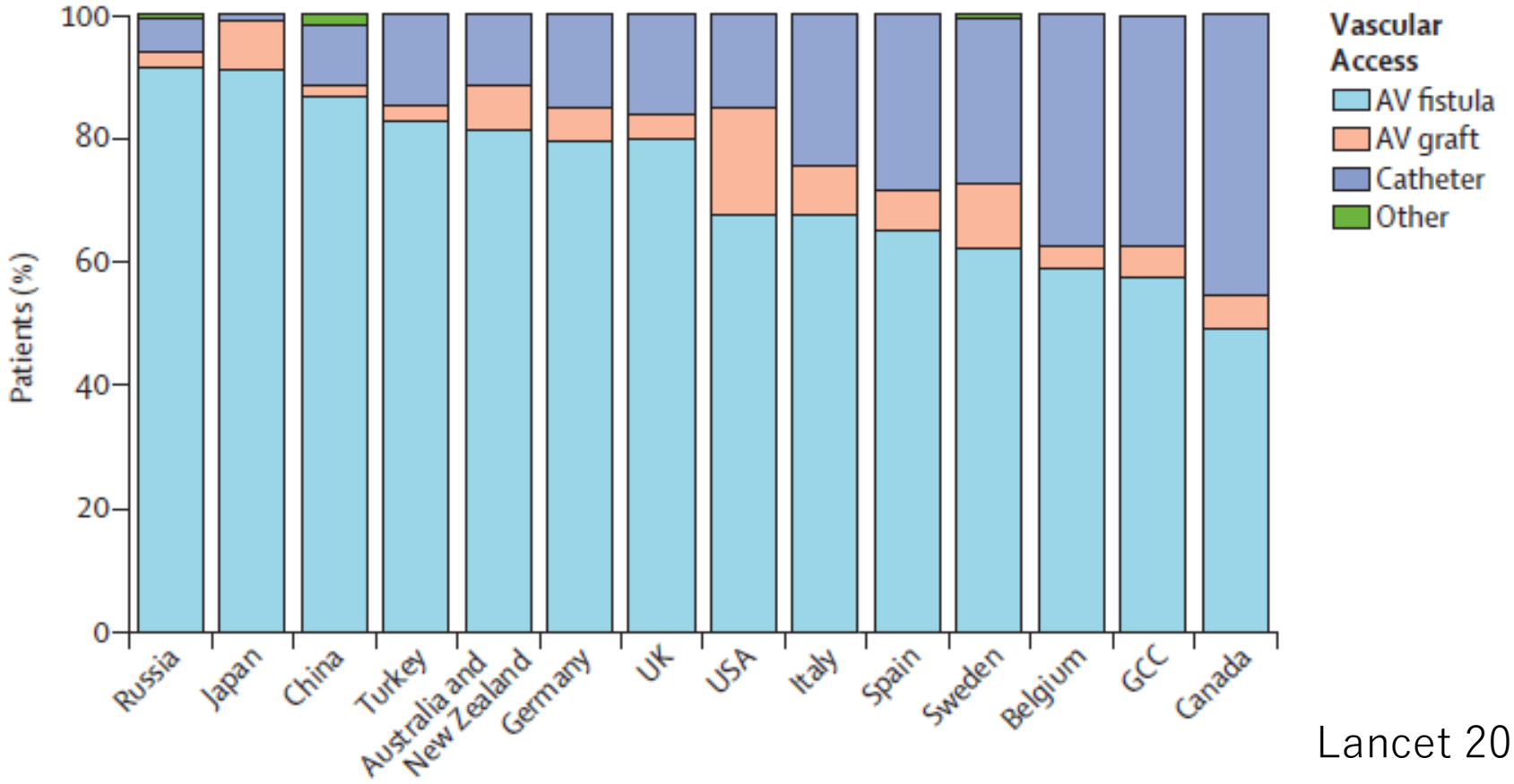
3) The target blood flow in HD is lower, and the criteria for intervention differ

4) Kidney transplants are infrequent and long-term dialysis patients are common, AVFs are preferred

5) Most of them are cannula-type dialysis needles

6) The medical departments involved in VA surgery are diverse.

VA modality of dialysis total hemodialysis patients by country (2012–15:DOPPS)



Lancet 2016; 388: 294–306

Changes of VA modality in JAPAN

	AVF	AVG	superficialization	direct puncture (artery)	TCVC	NTCVC	single needle dialysis	external shunt	others
1998	91.4	4.8	2.5	—	—	—	—	0.2	1.1
2008	89.7	7.1	1.8	0.1	0.5	0.5	0.2	—	0.1
2017	89	7.3	1.8	0.1	1.4	0.4	—	—	0.1

JRDRdata

International Difference in Arteriovenous Access for Hemodialysis

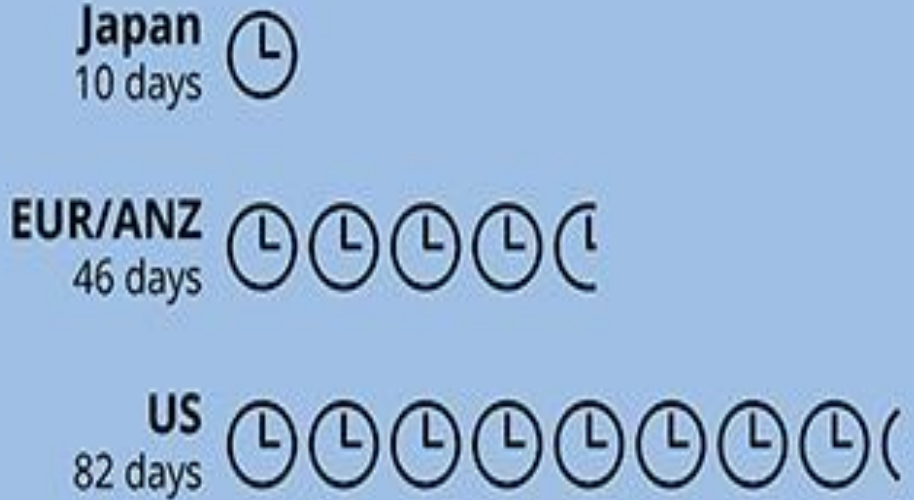


Researchers examined differences in the use of arteriovenous fistula (AVF) in Japan, Europe/Australia/New Zealand (EUR/ANZ), and the US.

% of AVFs in lower arm
2012-2015



Time to first successful AVF use
2009-2015



Conclusion: Large international differences in arteriovenous access practice raise important questions regarding what is best practice and how it is best achieved to optimize vascular access outcomes.

Pisoni RL, Zepel L, Fluck R, Lok CE, Kawanishi H, Süleymanlar G, Wasse H, Tentori F, Zee J, Li Y, Schaubel D, Burke S, Robinson B. International differences in the location and use of arteriovenous accesses created for hemodialysis: Results from the Dialysis Outcomes and Practice Patterns Study (DOPPS). Am J Kidney Dis. In Press 2017.

Graphic created by
ARBOR RESEARCH
COLLABORATIVE FOR HEALTH

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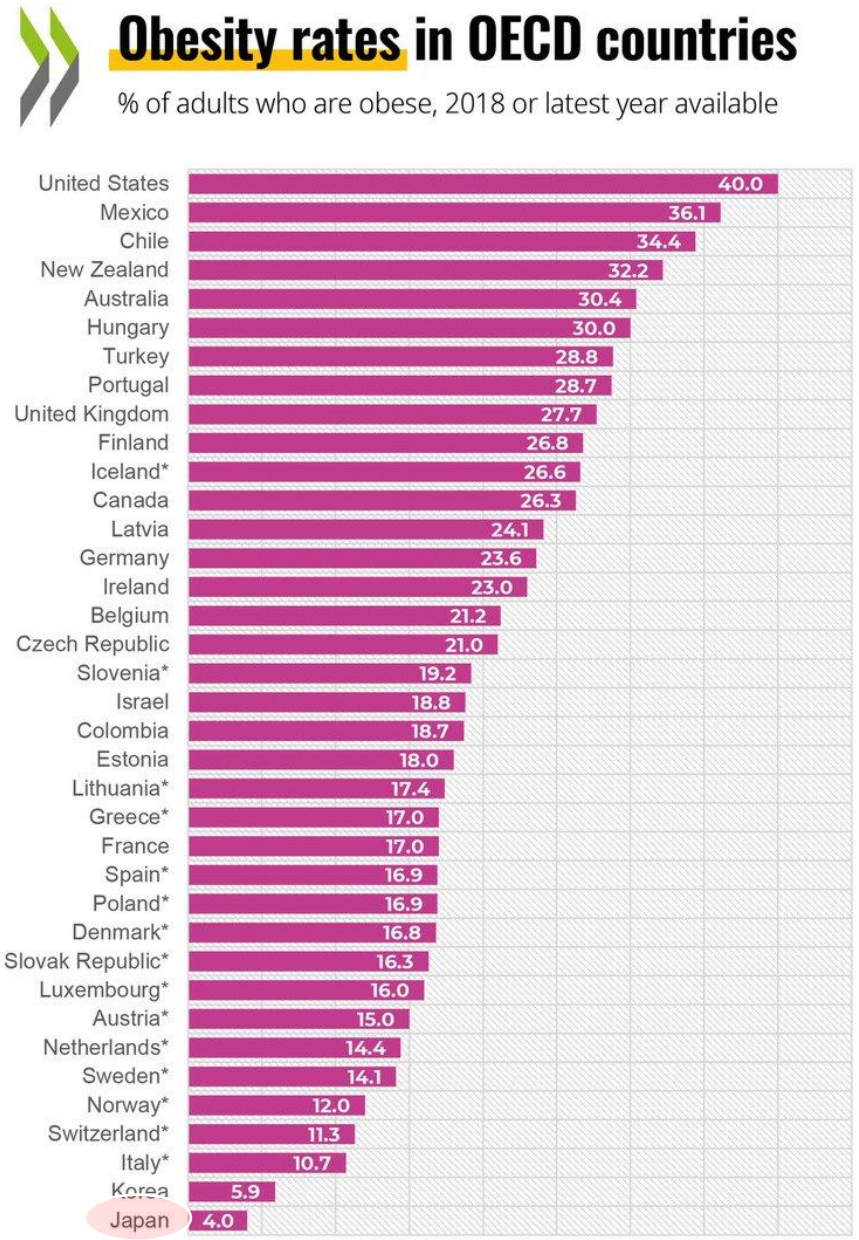
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Percentage of Adult Obesity (BMI ≥30) by Country

International Difference in Arteriovenous Access for Hemodialysis

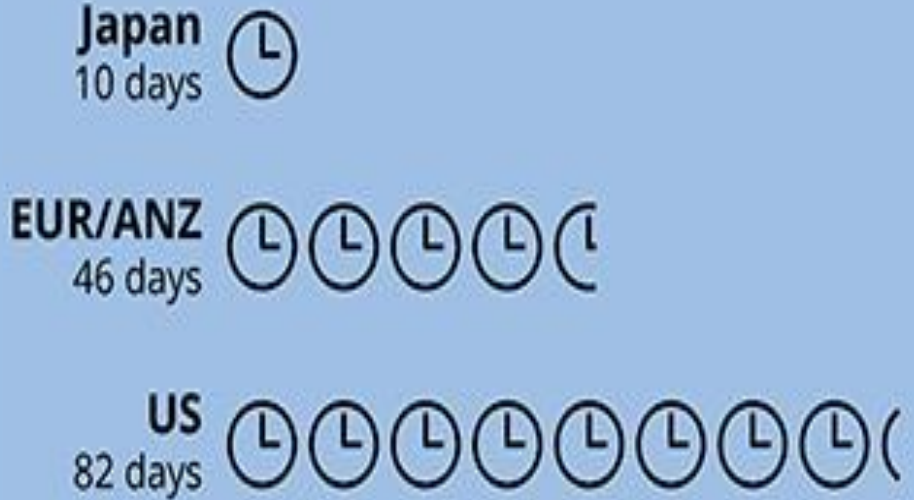


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Setting Blood flow rate by Region, from DOPPS-2&3

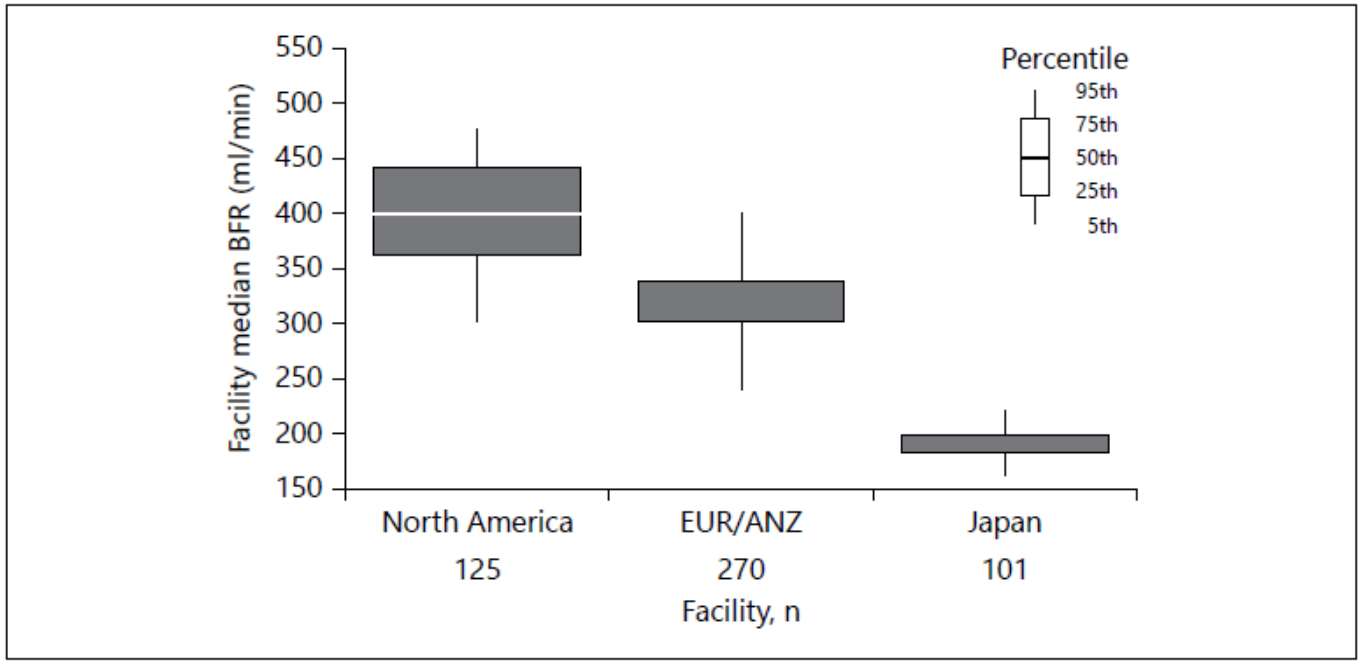
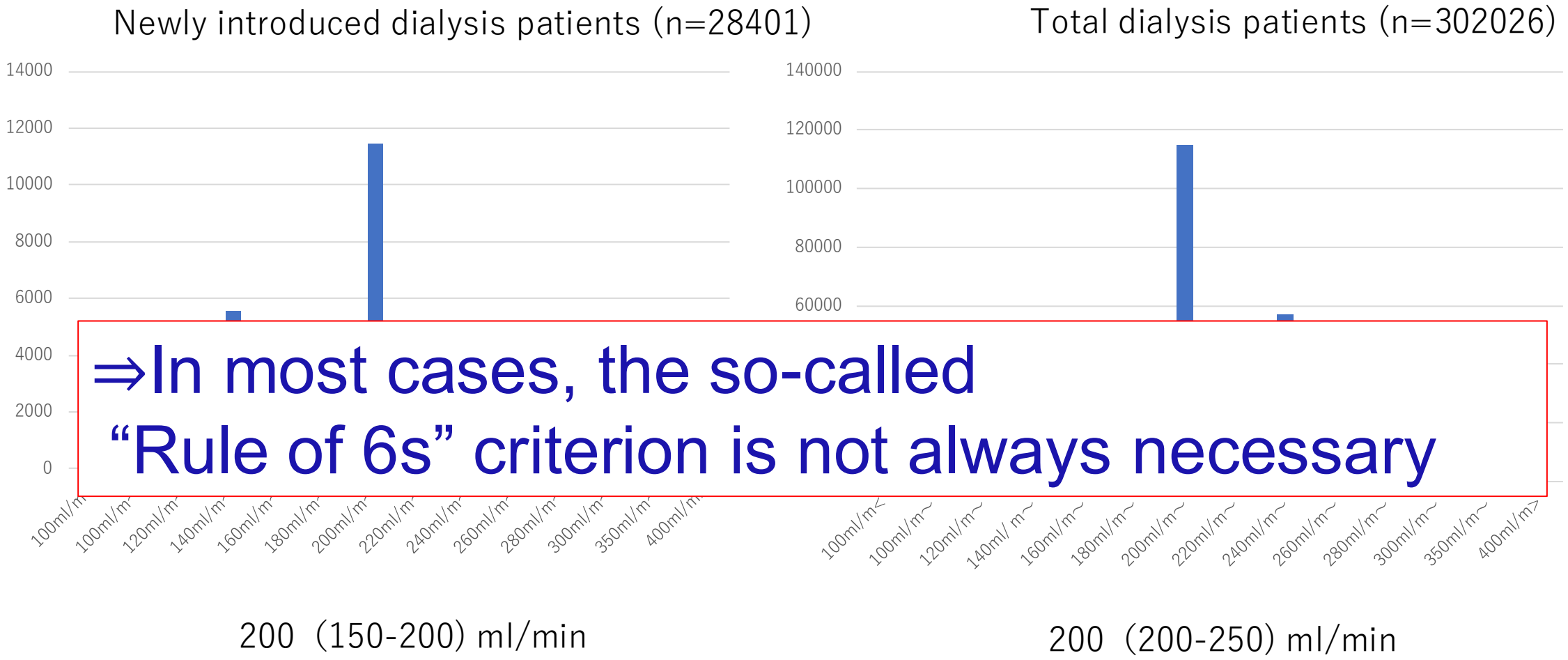


Fig. 2. Distribution of facility median BFR by region. Facility medians calculated from initial prevalent (>90 days on dialysis) cross-section of patients in each phase among facilities having at least 7 patients.

Nephron Clin Pract 2013;124:23–30

Setting Blood flow rate for hemodialysis patients in Japan



⇒In most cases, the so-called
“Rule of 6s” criterion is not always necessary

200 (150-200) ml/min

200 (200-250) ml/min

Self-made using the WADDA system from the JRDR 2022 year-end survey

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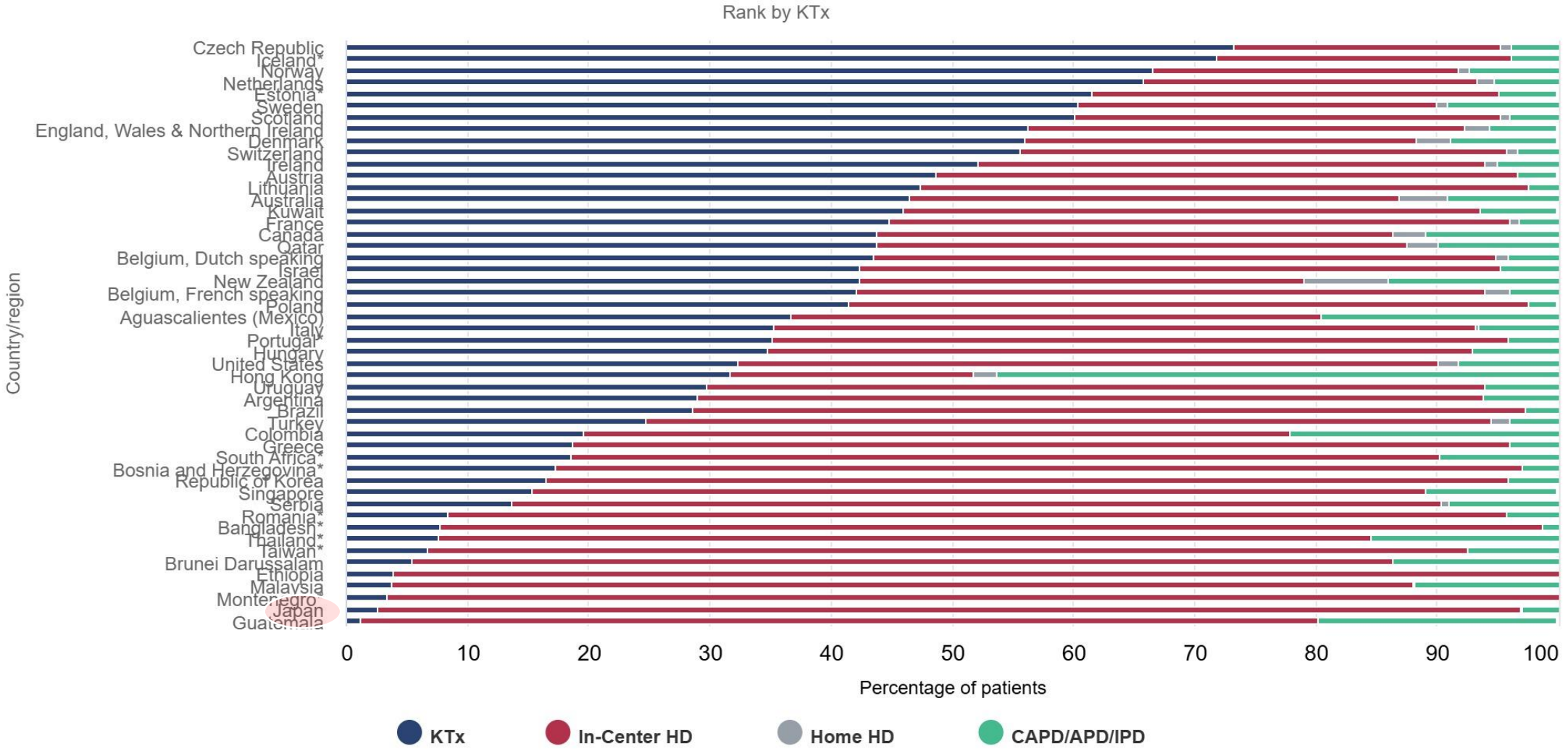
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Figure 11.15 Percentage distribution of ESRD treatment modality, by country or region, 2022



Data Source: 2024 United States Renal Data System Annual Data Report

USRDSdata

Distribution of dialysis vintage in dialysis patients

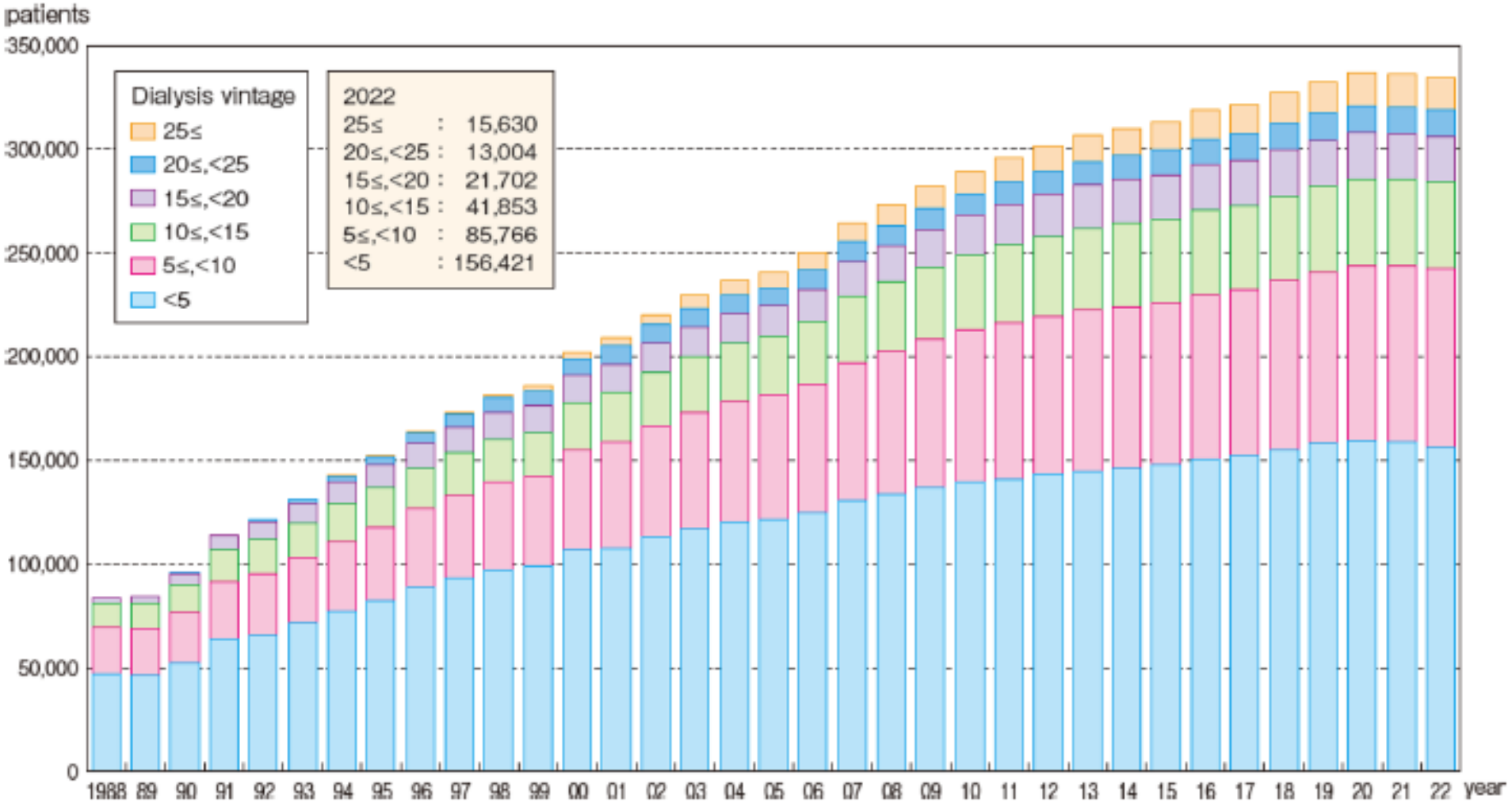


Fig. 8 Prevalent dialysis patient count by dialysis duration for 1988–2022

JRDRdata

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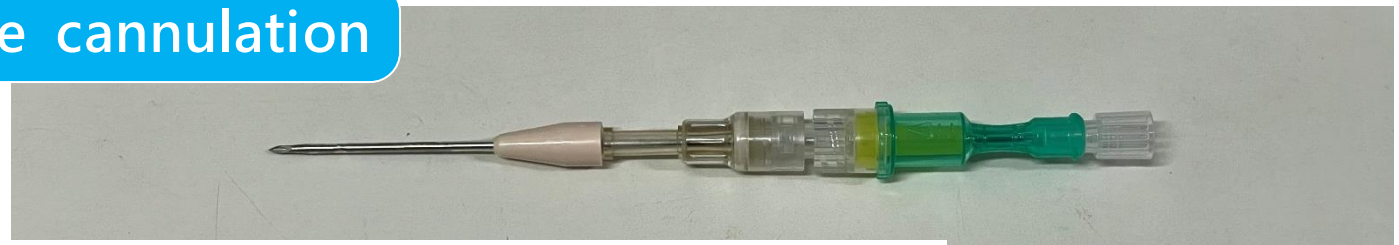
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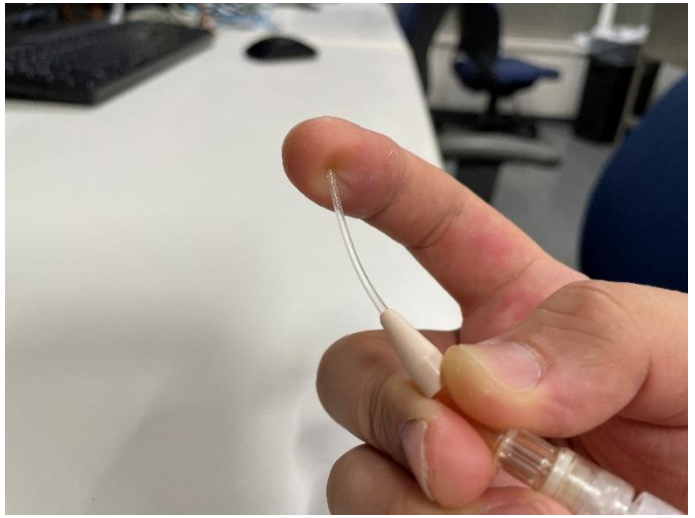
Use of Cannula-type Dialysis Needles (98.9%)

Before cannulation



Perform a puncture in this state





Once puncture is complete, remove the inner tube (metal needle)

After cannulation



Outer tube to be implanted in blood vessels

It is gentle on blood vessels, but it is about three times more expensive !

With safety devices

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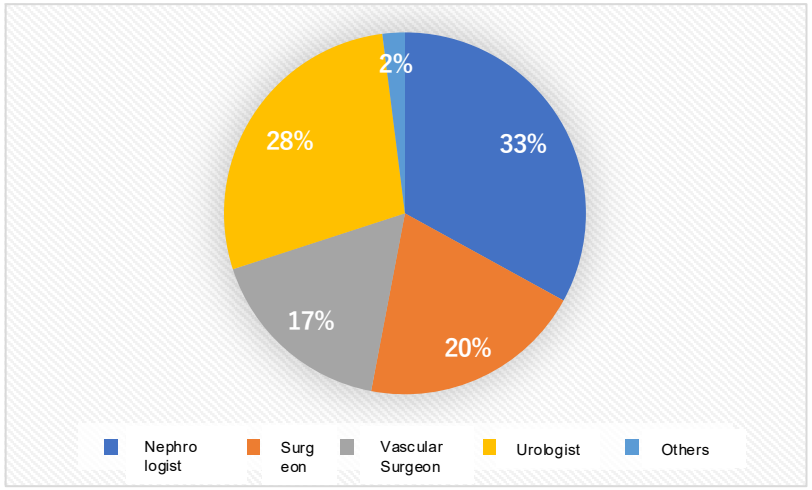
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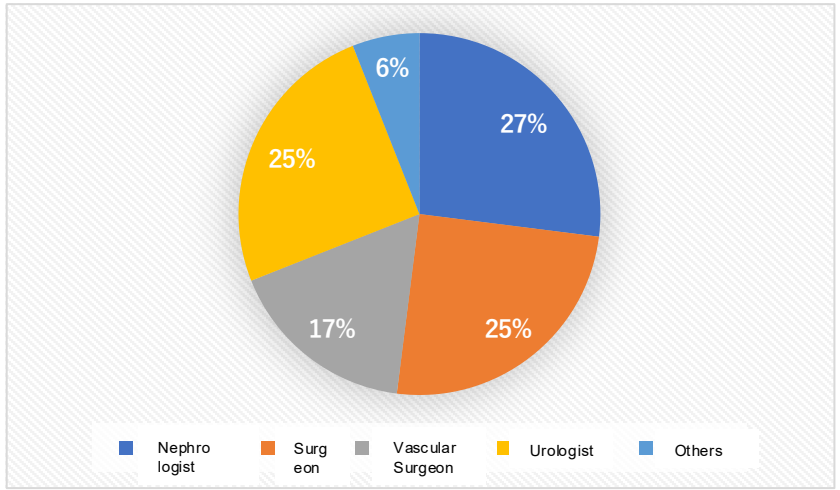
6) The medical departments involved in VA surgery are diverse.

Who is performing VA surgery in Japan?

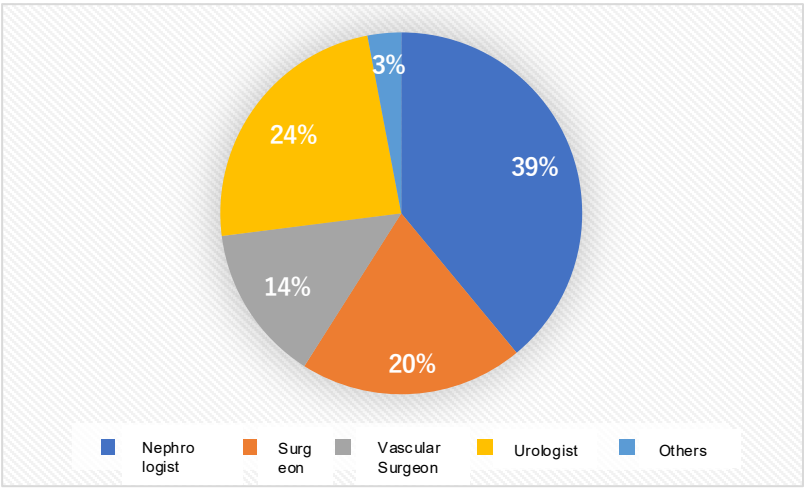
The fact that various physicians are evenly handling everything from AVF to Endovascular Intervention is a characteristic of Japan!!



AVF



AVG



Endovascular Intervention

I believe that a VA treating physician should be able to do both surgical and Endovascular Intervention !!

JSDA2016

Today's Agenda

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2) Characteristics of Japan's Health Insurance System

3) The Current Use of DCB in Japan

4) The widespread use of ultrasonography

Japan's Health Insurance System and Medical Reimbursement

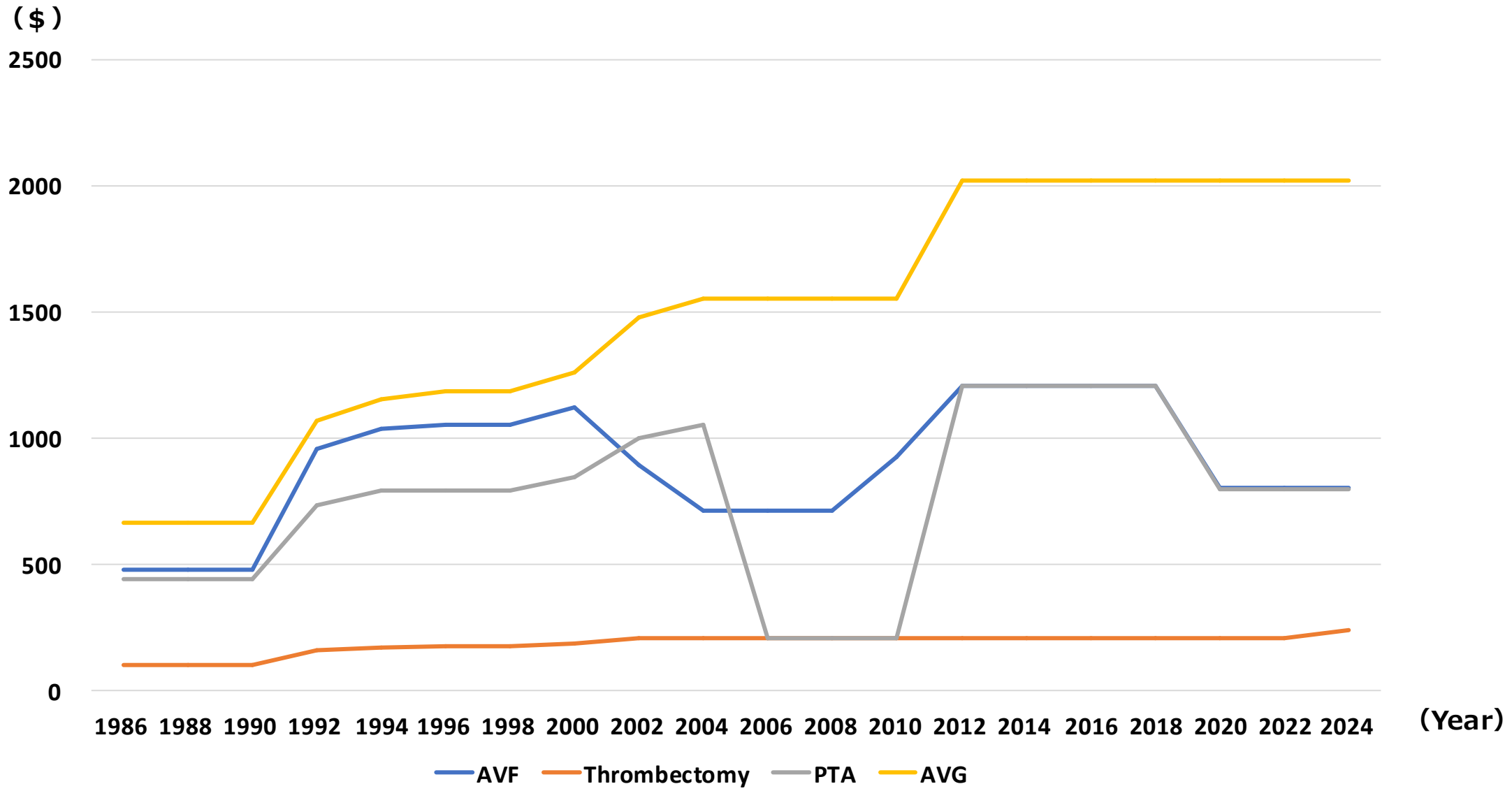
1）Japan has universal health insurance coverage.

2）Almost all medical expenses for dialysis patients are covered by insurance.

3) In medical fees, there are two parts: one corresponding to technical fees (such as surgeries), and the material costs.

4) There are two types of medical fees: bundled payment and fee-for-service fees.

Changes in the technical fees for medical procedures in Japan



Changes in the technical fees for PTA procedures in Japan

The Changes in PTA Insurance Reimbursement in Japan

period	Device	Insurance Coverage and Key Revisions	Comments
~2012	PTA	Not covered by insurance as a dedicated technical fee.	The specific technical fee is not listed and is billed within the framework of existing catheter treatments.
2012	PTA	Percutaneous treatment for VA is now officially covered under insurance. Technical fee: 1,157 USD. Billable only once every three months (three-month rule).	Established as an official treatment option
2020	PTA	Initial technical fee reduced from 1,157→768 USD. However, PTA procedures can now be performed up to twice every three months if the following conditions are met.	Relaxation of conditions and ultrasound findings linking to reimburesment
		Additional Eligibility Criteria (VA occlusion, Qa ≤ 400 mL/min, RI ≥ 0.6).	
2021	IN.PACT AV DCB	Drug-coated balloons for AVF are covered by insurance.	From “Simple Dilation” to “Regeneration Suppression”

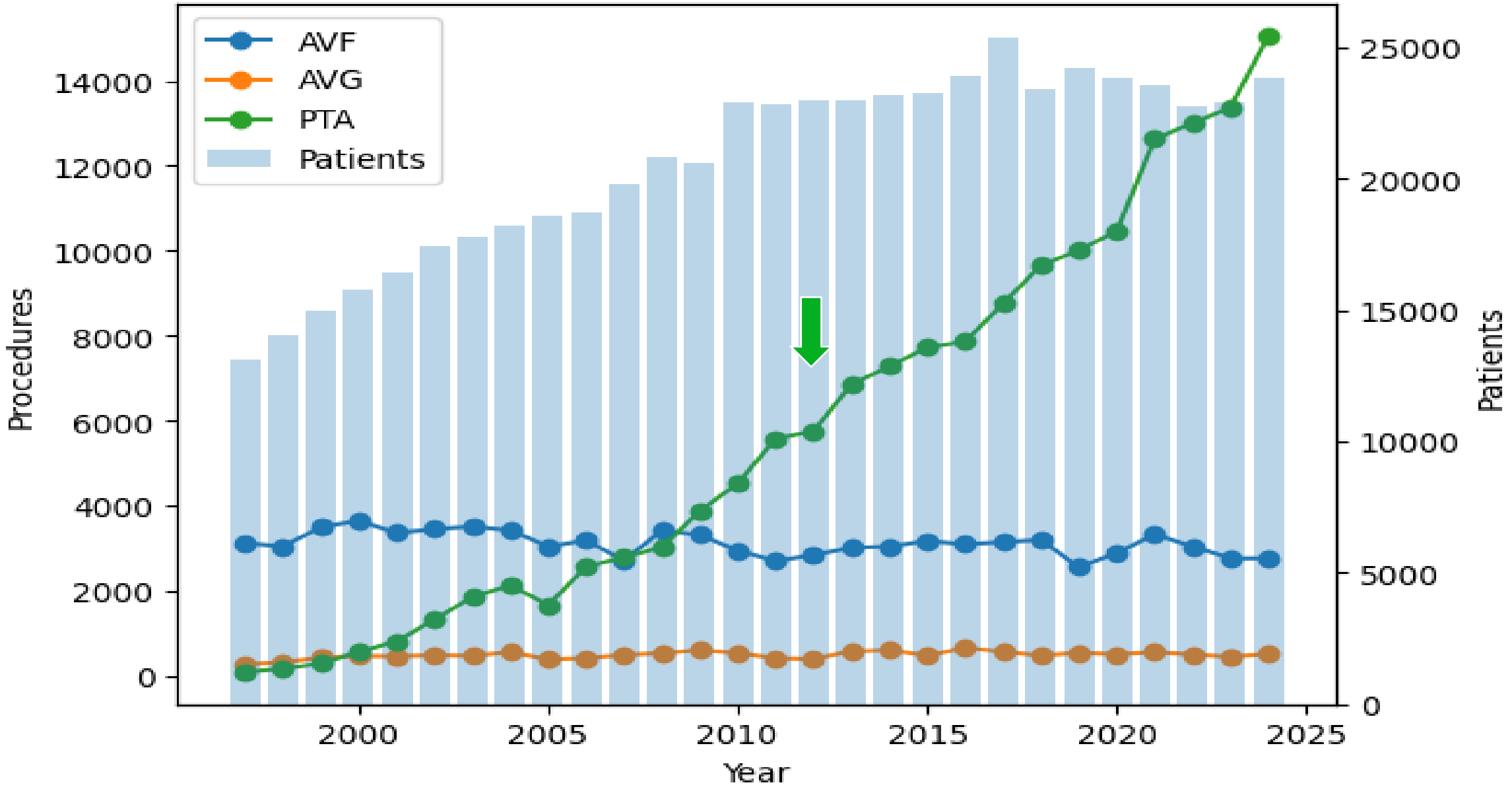
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Changes in the number of AVFs and PTAs over 25 years in Osaka Prefecture

No increase in AVF is a benefit of VA management by PTA



From a survey of chronic dialysis patients in Osaka Prefecture (24,000 dialysis patients in a population of 8.8 million)

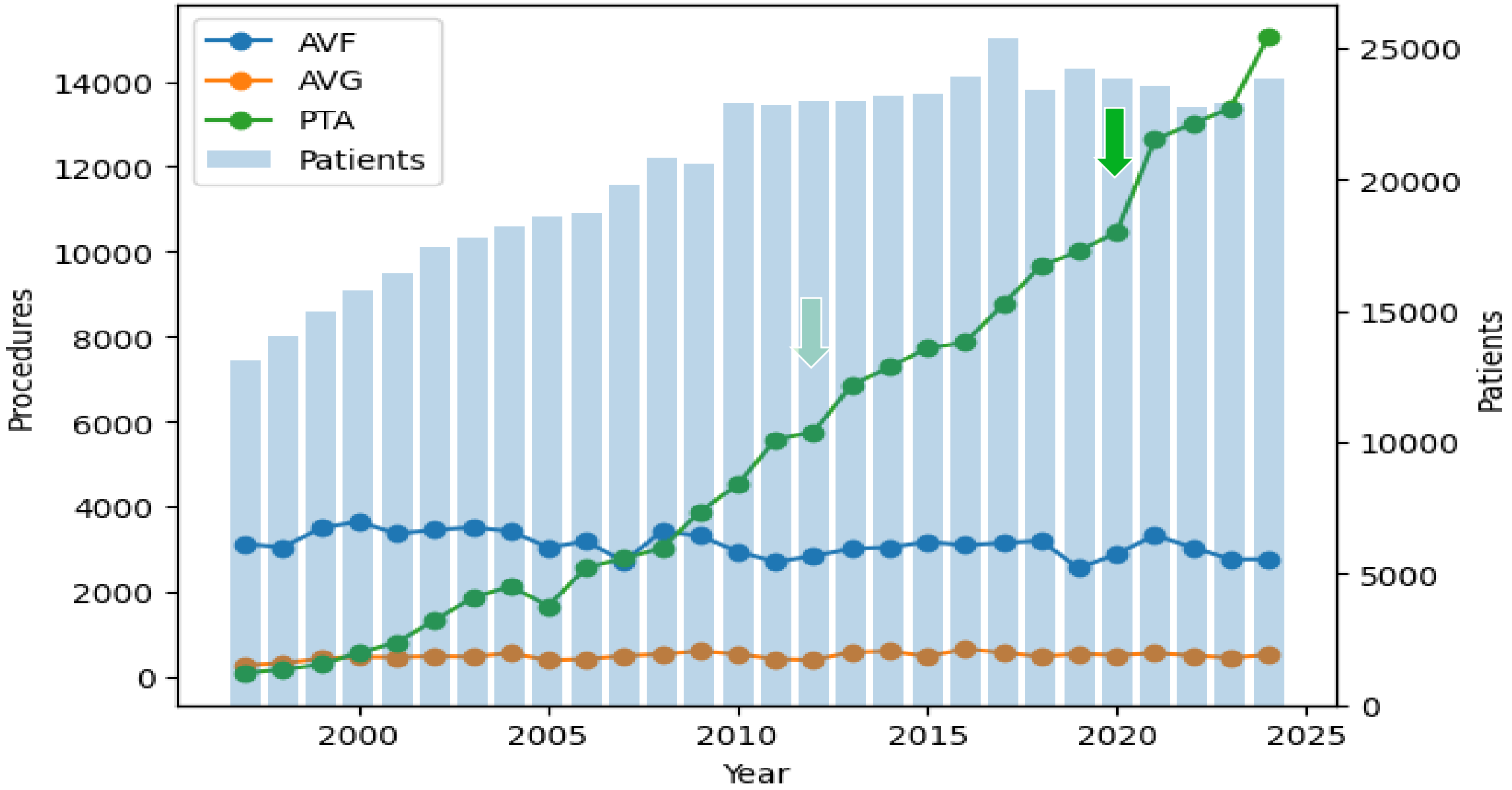
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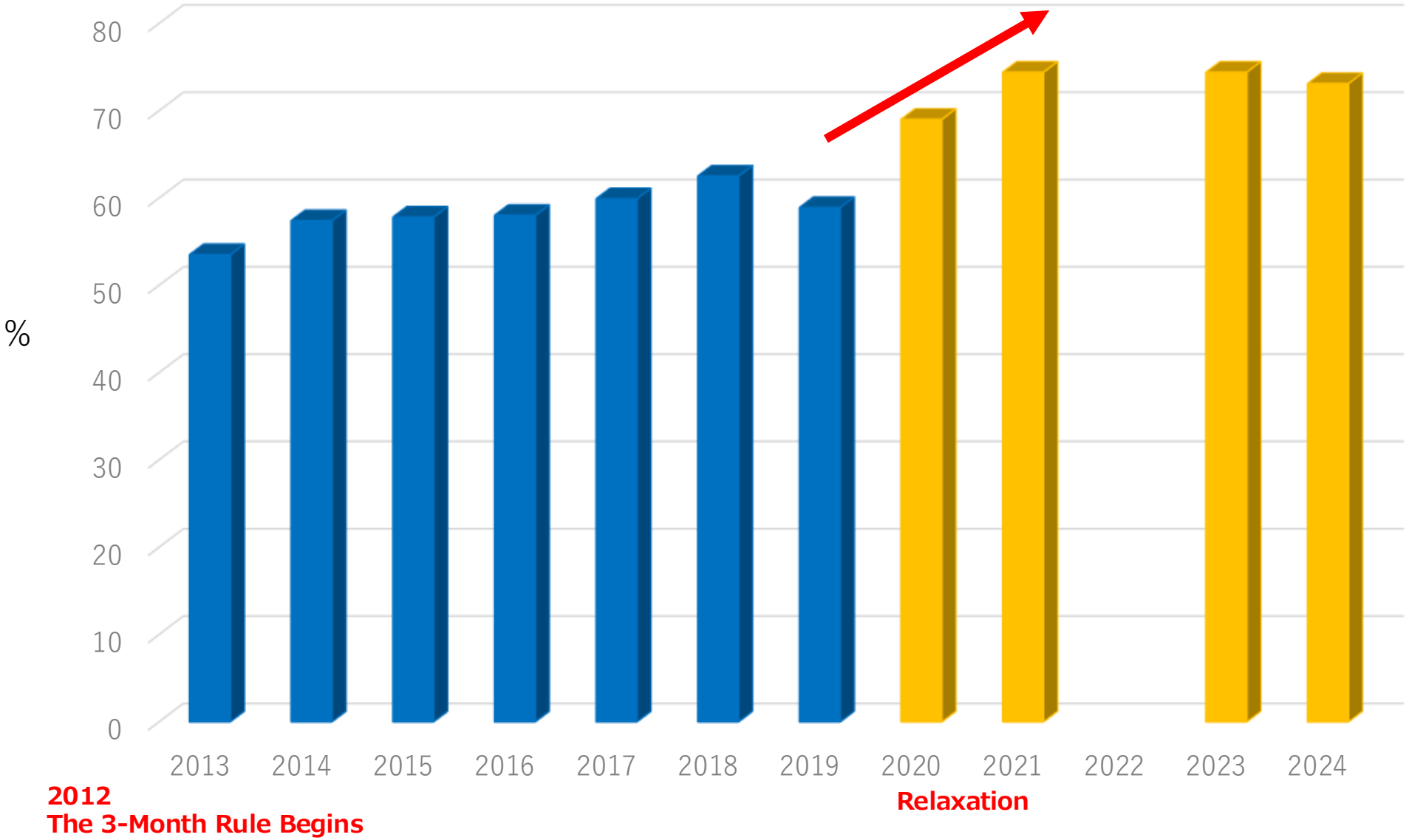
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PTA rate for stenosis/occlusion within 3 months (vs. surgical thrombectomy or VA reconstruction)



From a survey of chronic dialysis patients in Osaka Prefecture (24,000 dialysis patients in a population of 8.8 million)

Today's Agenda

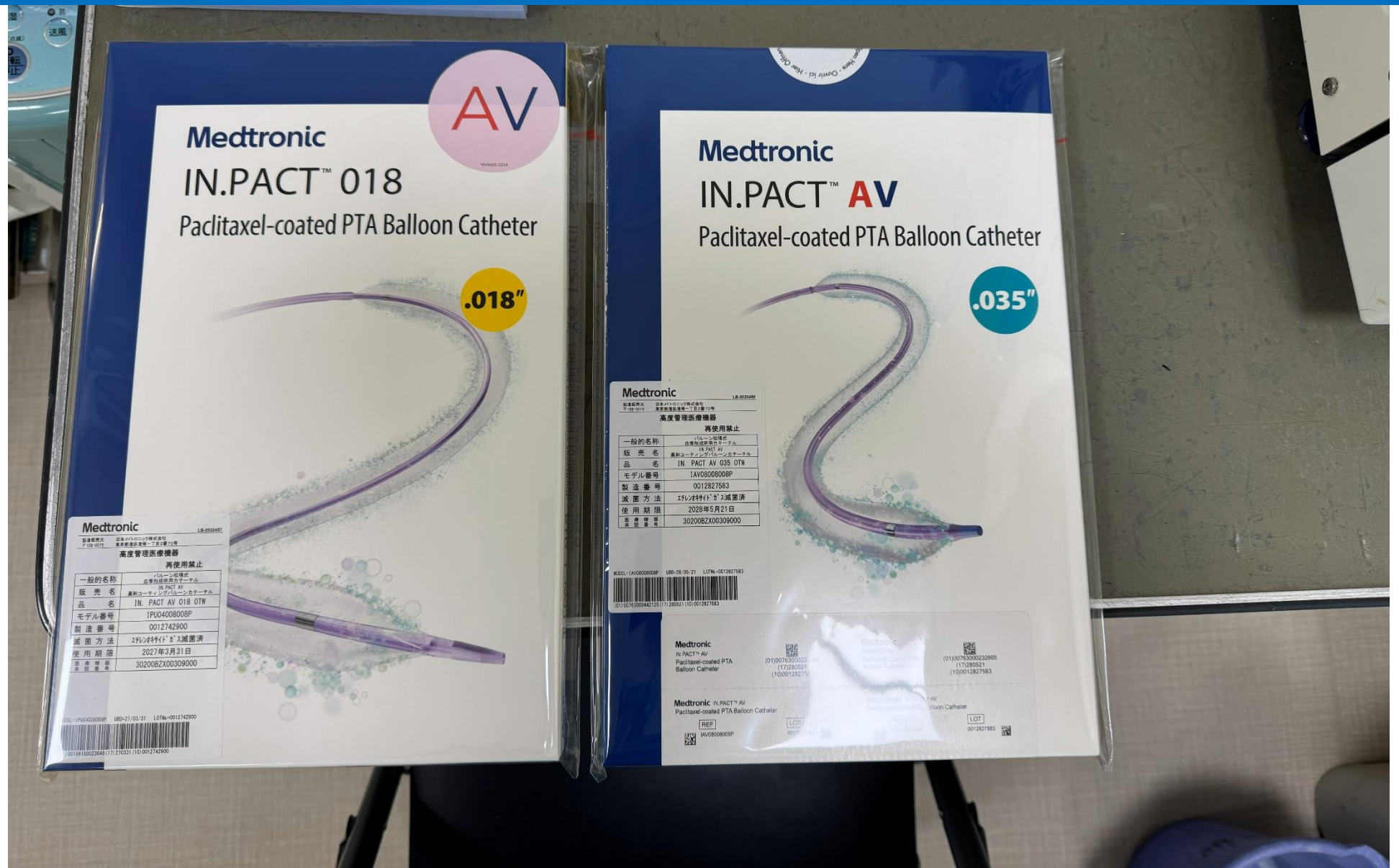
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Drug-Coated Balloon (IN.PACT AV®)



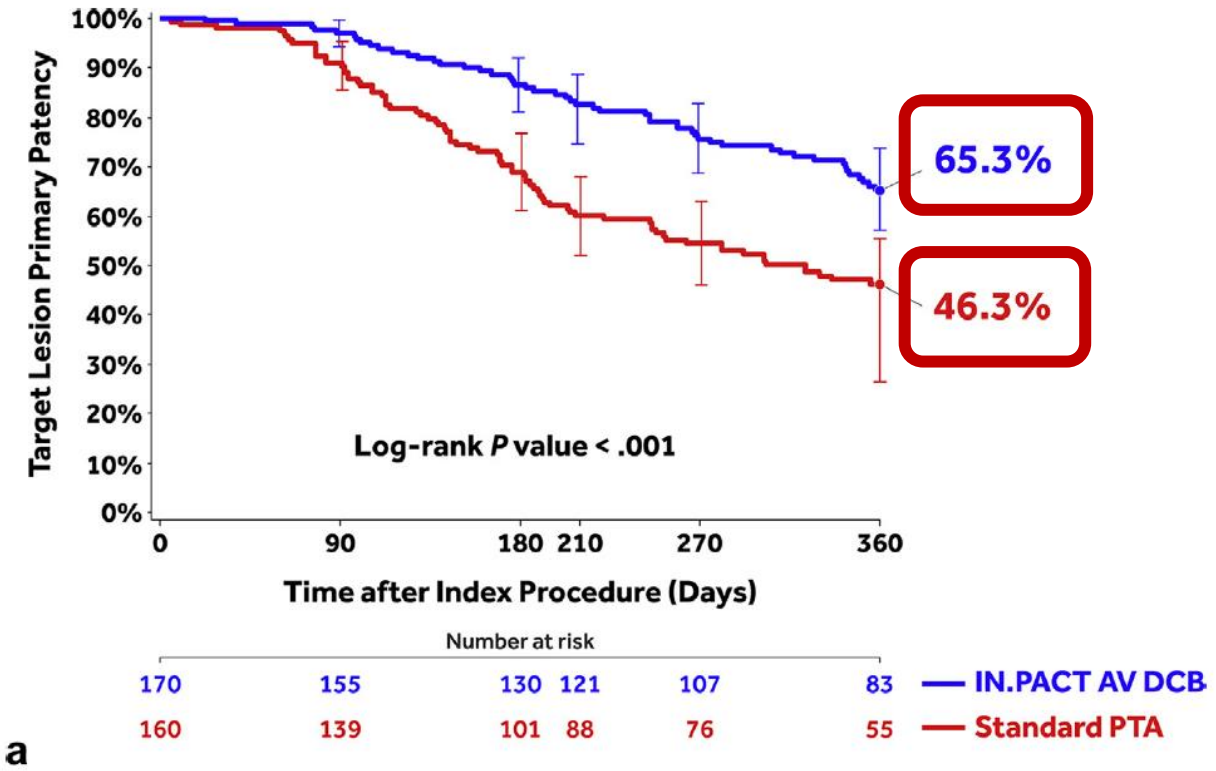
Emerging new VAIVT devices that could be game changers in VA management

1）**Drug-Coated Balloon（IN.PACT AV®）**	**2021：$1100**
2）Stent Graft（GORE® VIABAHN® Stent Graft）	2021：$2300

◎Health insurance is available for all devices.

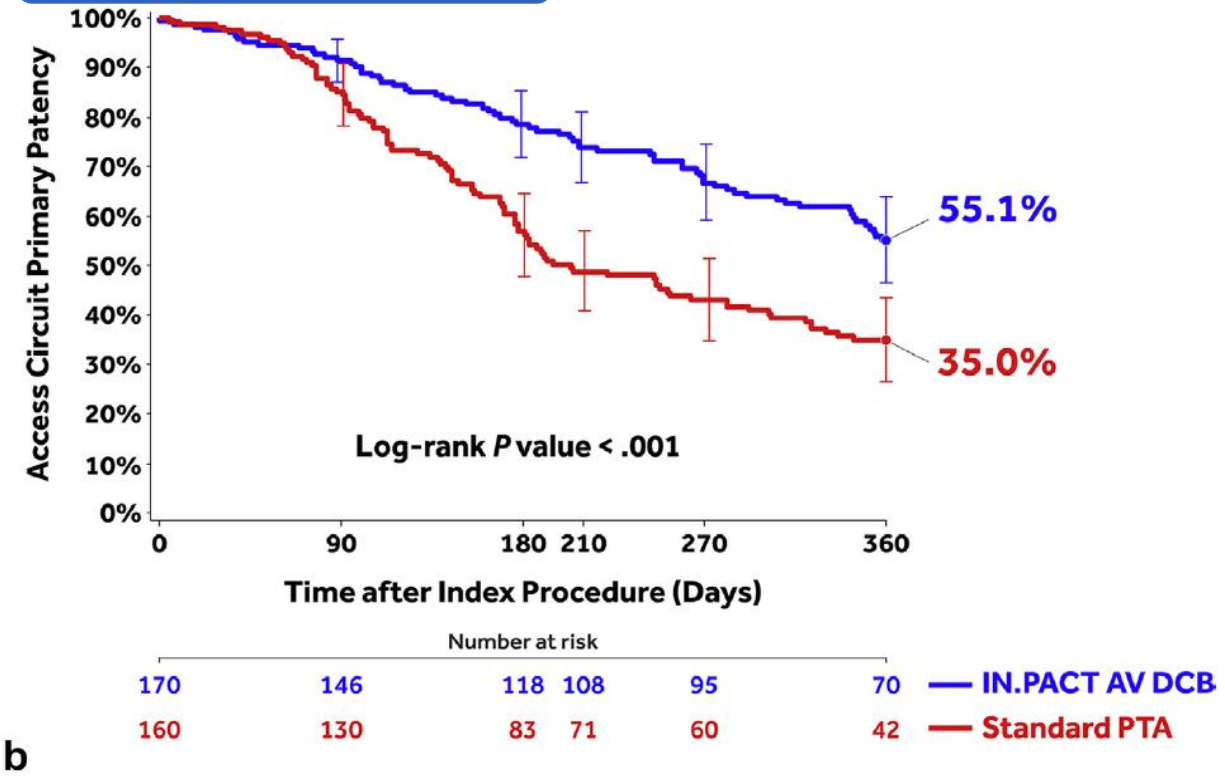
IN.PACT AV Access RCT 12-Month

Target Lesion



a

Access circuit

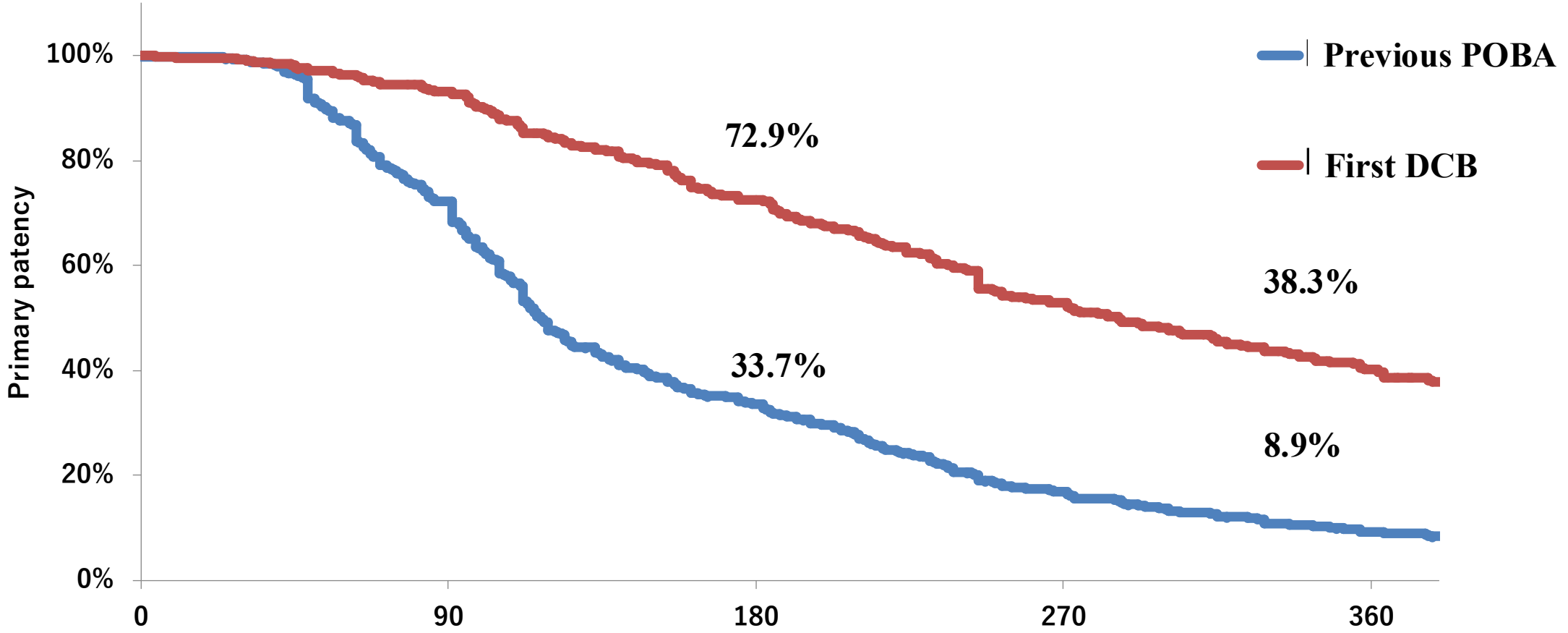


b

(Holden A et al, J Vasc Interv Radiol.2022 ;33:884-894.)

However, the patients included in the study and the patients who actually wish to use DCB are different.

Previous POBA vs first DCB



The effectiveness of DCB has been sufficiently proven in the real world.

J Vasc Access. 2025 Nov;26(6):1970-1978

Question

Do you think the use of DCB has reduced the number of PTAs?

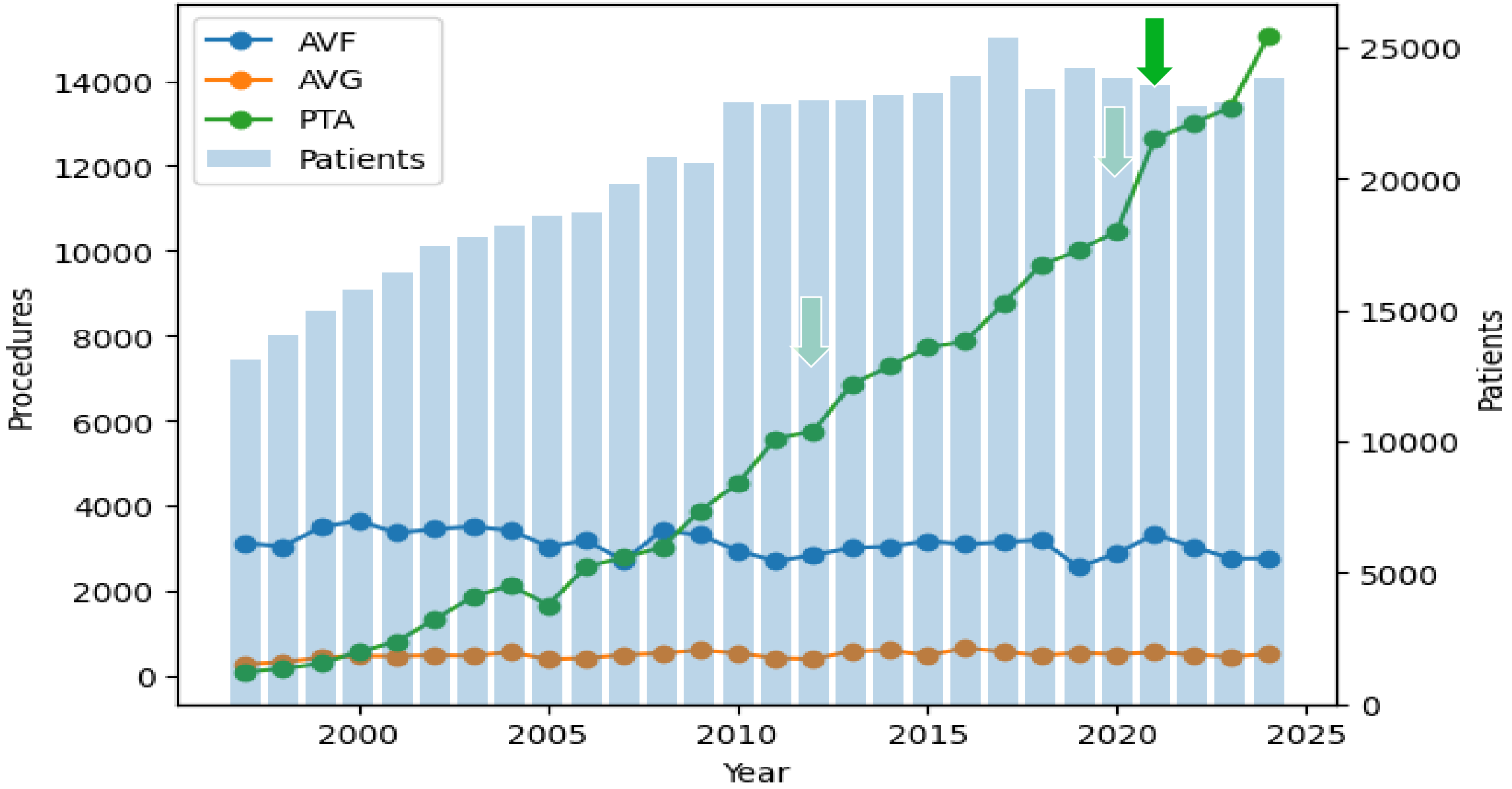
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My personal opinion on this matter

1) The relaxation of insurance coverage allowing PTA procedures to be performed twice within a three-month period (effective 2020) has had a significant impact.

2) The widespread adoption of ultrasound diagnostic equipment is also believed to be a contributing factor

Insurance System >> DCB

The usage rate of DCB among all PTAs in Japan

At facilities in Japan, the rate is around 10–30%.

Technical fee and material costs for PTA in Japan

Technical fee： ＄800

Material costs：

Guidewire for angiography

1）Normal ＄14

2）For microvessels ＄83

PTA balloon catheter

1）General type

a）Standard type ＄225

b）Special type ＄318

2）Cutting type ＄853

3）Anti-slipping type ＄591

4）DCB catheter ＄1100

Regarding the 2026 revision of medical fees.....

A portion of the Technical fee has been reduced↓

As a result of increased vascular access (VA) medical expenditures due to the use of expensive drug-coated balloons (DCBs) and the relaxation of reimbursement regulations, part of the procedural reimbursement fees were reduced in the 2026 medical fee revision.

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①Ultrasound-guided needle puncture (56.3%)



②VA Surveillance By Doppler Ultrasound(77.2%)

1) Evaluation of VA function

- blood flow volume **(FV) (= DU_Qa)**
- resistive index **(RI)**

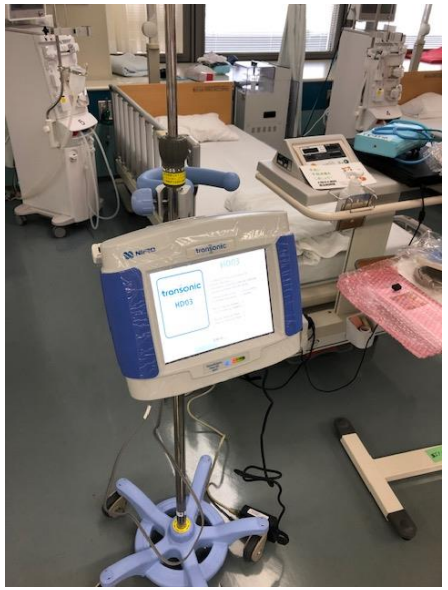
2) Morphological evaluation

3) VA recirculation (RR)

4) UDM_Qa (Ultrasonic Dilution Method)



Doppler ultrasound 77.2%



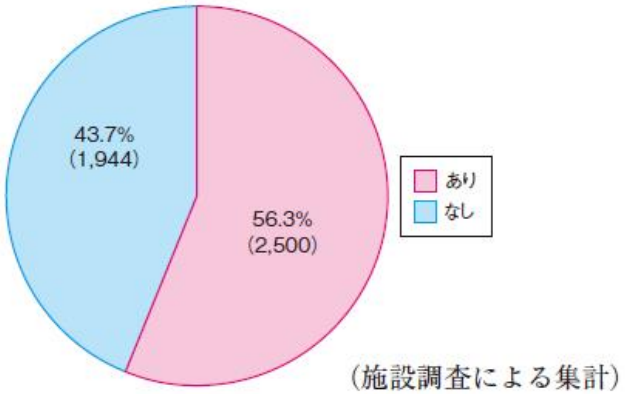
HD03 4%

③Ultrasound-Guided PTA (35.2%)



Ultrasound-guided PTA requires a skilled sonographer!

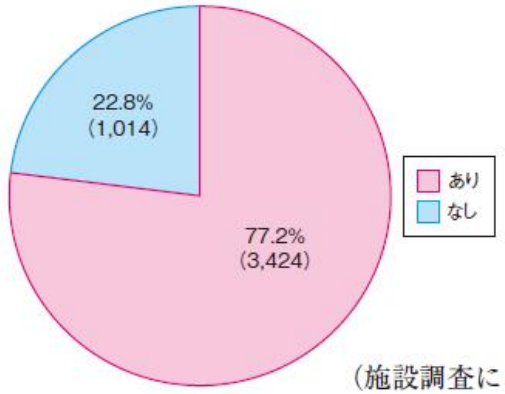
Ultrasound diagnostic equipment utilization rate amang the all facilities in Japan (2023)



（施設調査による集計）

図 33　穿刺での使用の有無，2023

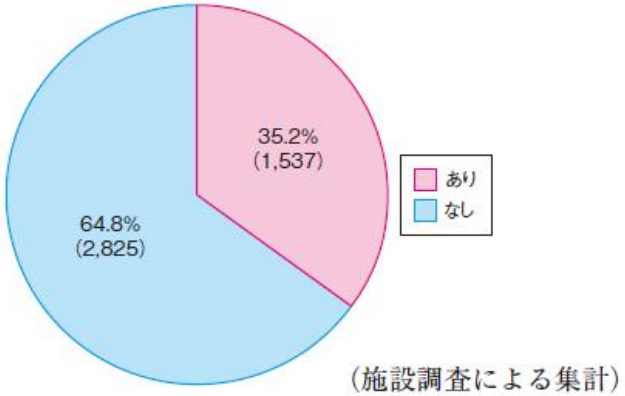
Rate of use for punctures



（施設調査による集計）

図 34　VA の機能や形態評価での使用の有無，2023

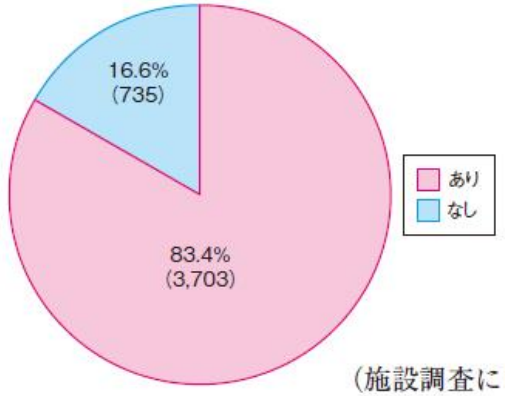
Rate of use for surveillance



（施設調査による集計）

図 35　PTA 等 VAIVT 療法での使用の有無，2023

Rate of use for PTA



（施設調査による集計）

図 36　バスキュラーアクセス（VA）管理におけるエコー使用の有無，2023

◎Rate of use for VA Management

大阪公立大学
Osaka Metropolitan University

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