VANDERBILT HEALTH

WELCOME To the

2026 SYMPOSIUM

VAS – Dialysis Access in European Nations

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GLOBAL DIALYSIS ACCESS FORUM

Disclosure:

Speaker name: **Robert Shahverdyan**

I have the following potential conflicts of interest to report:

X Consulting, honoraria and travel support: Becton Dickinson, Laminate medical, Xeltis, FLEX Vascular

X Speaker bureau: BrosMed medical, Cardionovum, Teleflex, Abbott Vascular, Getinge

X Advisory Board Member: Venova medical, FLEX Vascular

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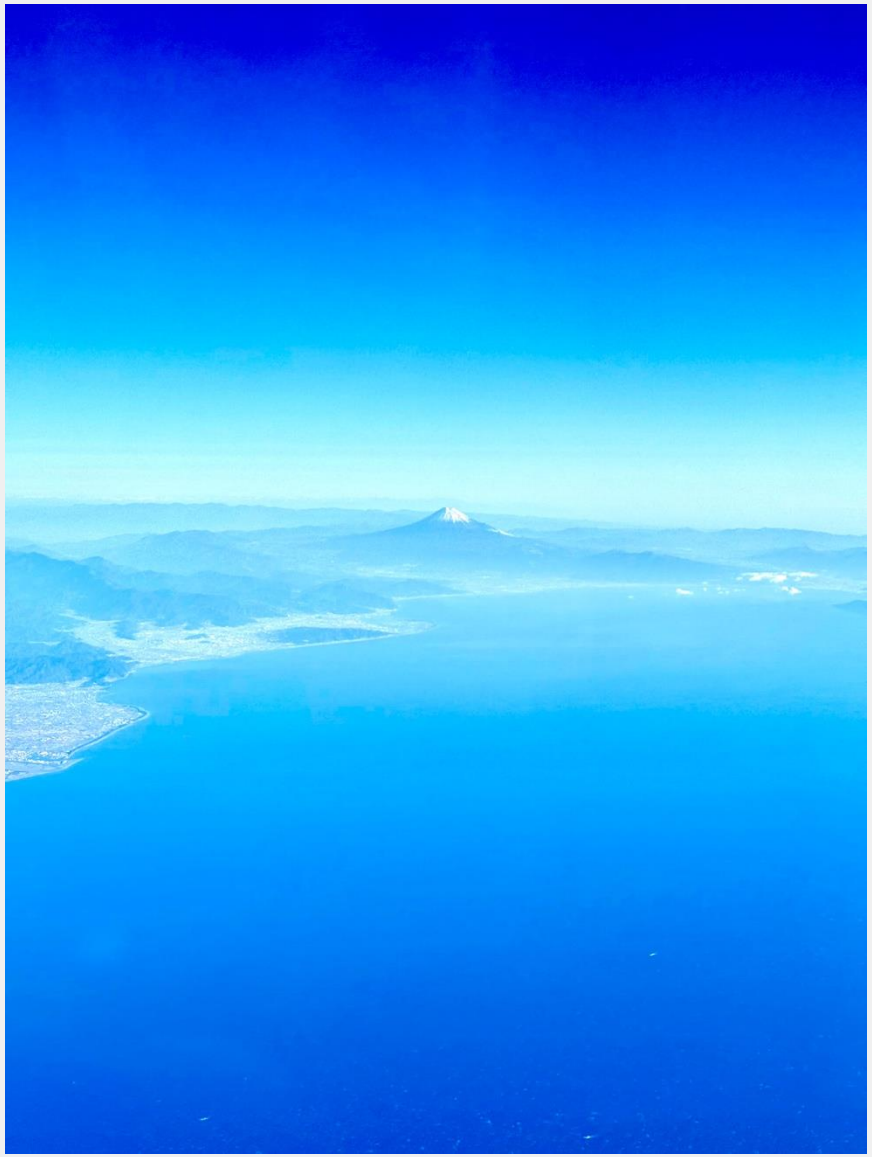
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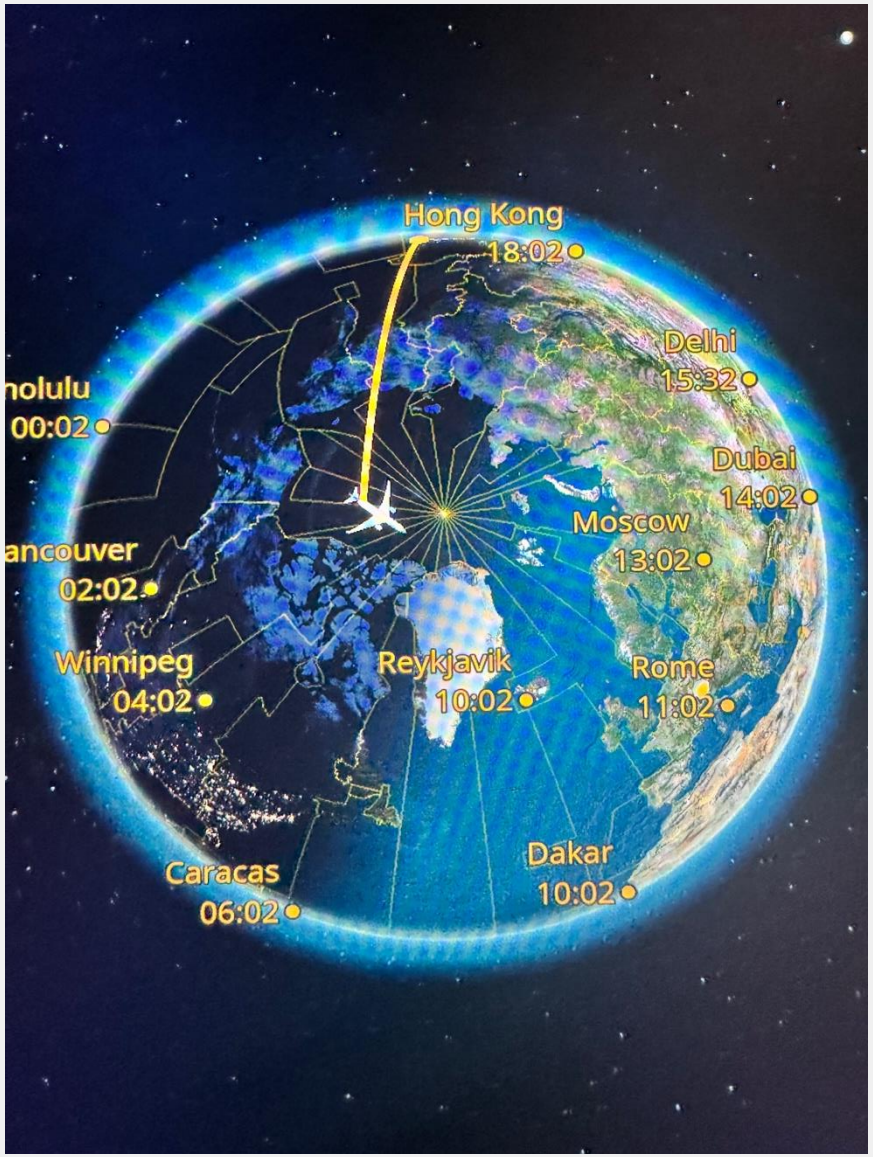
Speaker name: **Robert Shahverdyan**

I have the following potential conflicts of interest to report:

X Board Member and Treasurer of VAS

How do I follow Japan?





The ERA Registry Annual Report 2023: Epidemiology of Kidney Replacement Therapy in Europe

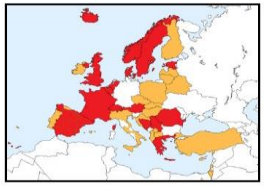
Clinical Kidney Journal

VANDERBILT HEALTH

The ERA Registry collects data on kidney replacement therapy (KRT) in patients with end-stage kidney disease. This paper summarizes the ERA Registry Annual Report 2023, with a special focus on comparisons by age.

Methods

ERA Registry on KRT



51 registries, 34 countries
(519 million people covered)
Individual patient data: **32**
Aggregated data: **19**

Outcomes included in the report:

- KRT incidence and prevalence (per million population; pmp)
- Survival probabilities (confidence interval; CI)
- Expected remaining lifetimes

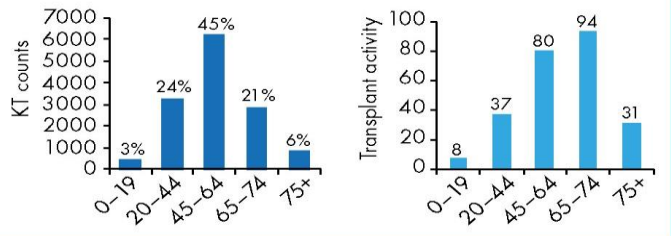
By modality: kidney transplantation (KT), haemodialysis (HD), and peritoneal dialysis (PD)

Report is available as Supplementary Material

Results

	Incident KRT	Prevalent KRT
Number (pmp), unadjusted	77,738 (151 pmp)	571,906 (1,101 pmp)
Age (% 65+ / % 75+)	58% / 29%	49% / 24%
Proportion male	64%	62%
Most common primary renal disease	Diabetes (22%)	Miscellaneous (18%)
Treatment modality distribution	83% HD, 11% PD, and 6% KT	56% HD, 5% PD, and 39% KT

KT counts and percentages (left panel) and transplant activity per million age-related population (right panel) by age (years)



In 2023; 22,344 KTs performed (43 pmp)

- 69% from deceased donors (DDs)
- 31% from living donors (LDs)

Unadjusted 5-year patient survival:
Dialysis: 41.4% (95% CI 41.1–41.6)
DD KT: 84.3% (95% CI 84.0–84.7)
LD KT: 94.0% (95% CI 93.6–94.4)

Conclusion: In 2023, the incidence of KRT in Europe was 151 pmp and the prevalence was 1,101 pmp. The kidney transplant rate was 43 pmp. Nearly one-third of patients initiating KRT were 75 years or older.

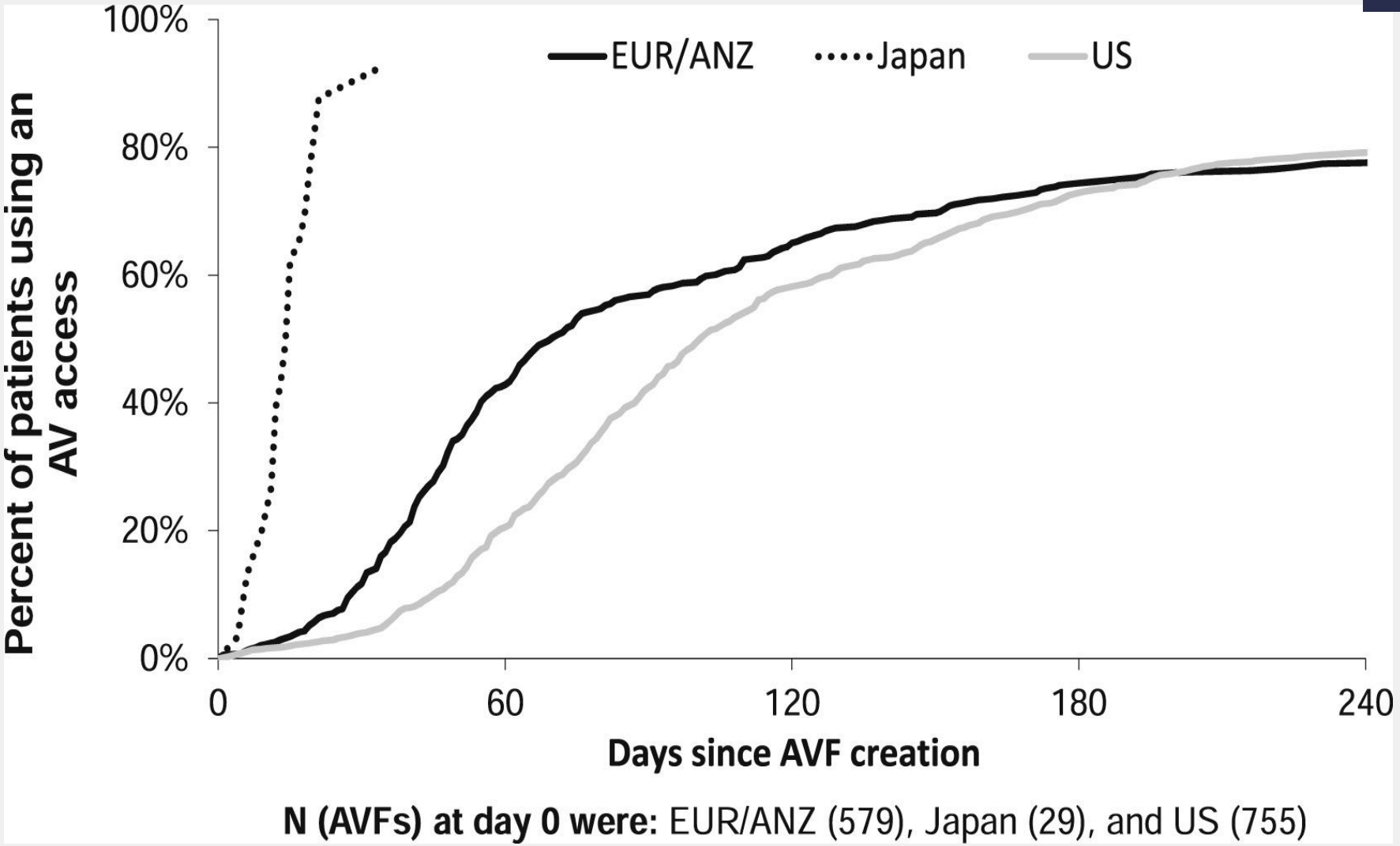
Hoekstra, M. W. F.
Clinical Kidney Journal (2026)
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Clin Kidney J, sfag036, https://doi.org/10.1093/ckj/sfag036

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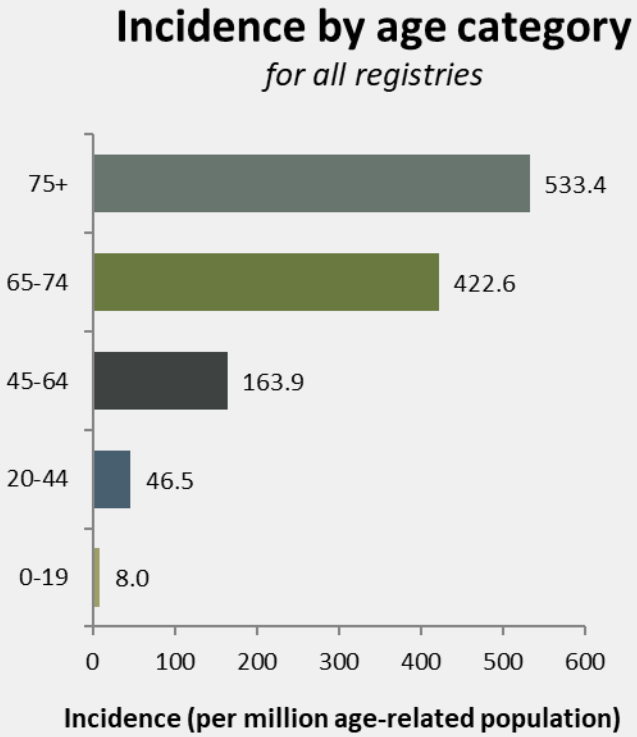
OXFORD UNIVERSITY PRESS

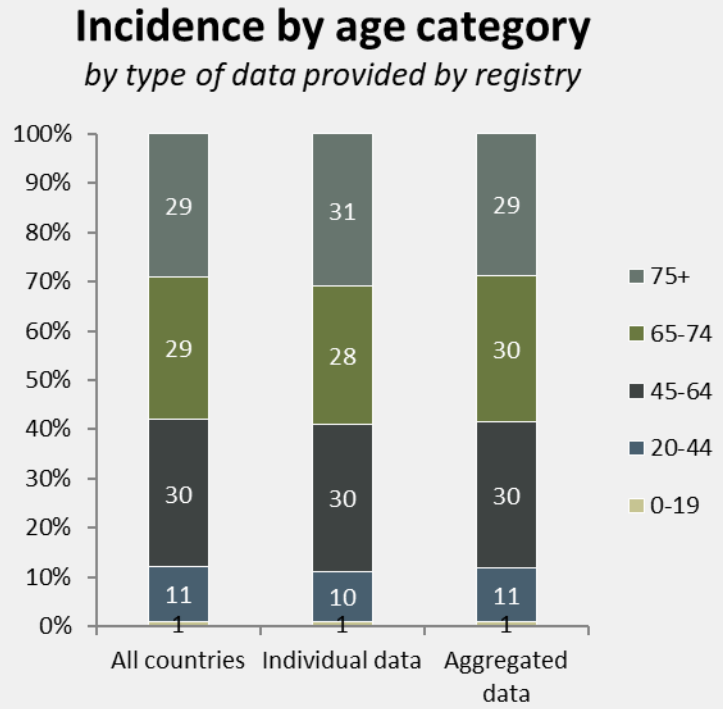
VASA Vascular Access Society of the Americas — Access Excellence.



American Journal of Kidney Diseases 2021 77245-254

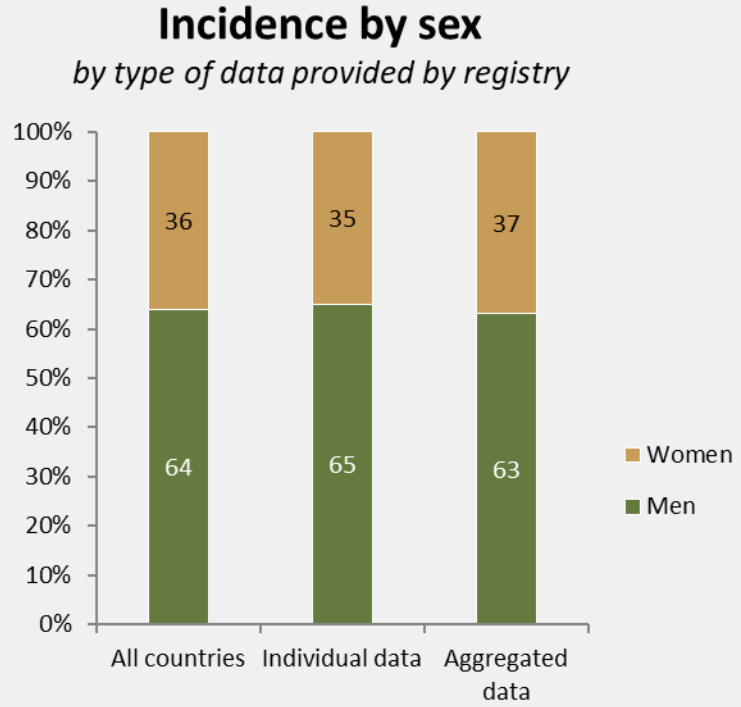
- Incident patients accepted for KRT in 2023
- *by age category*



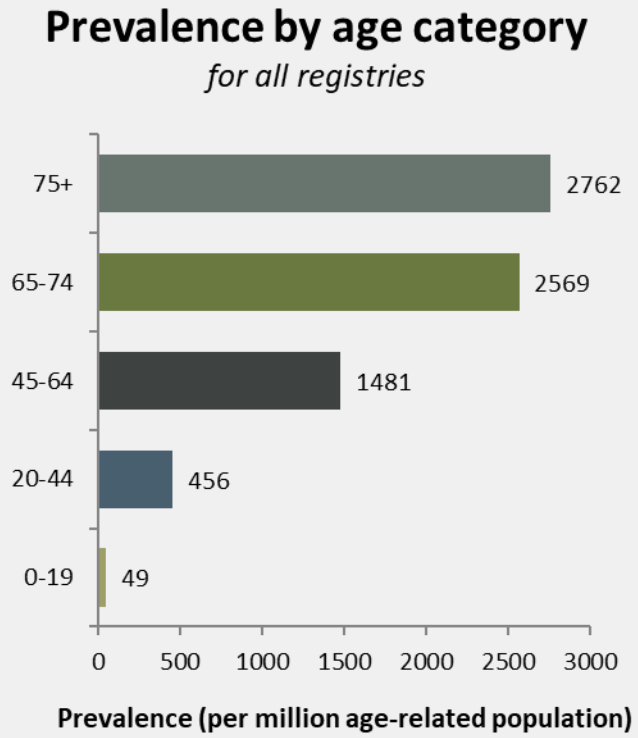


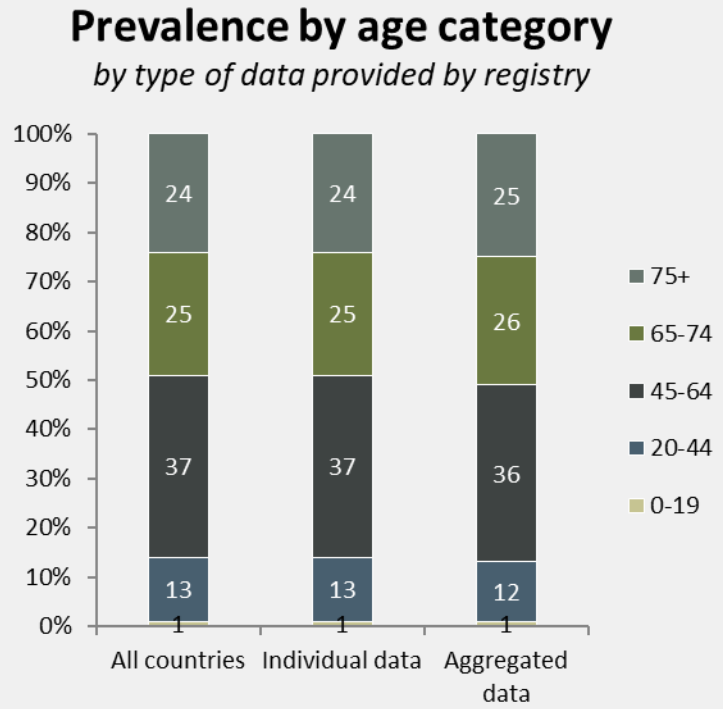
- Incident patients accepted for KRT in 2023
  by sex





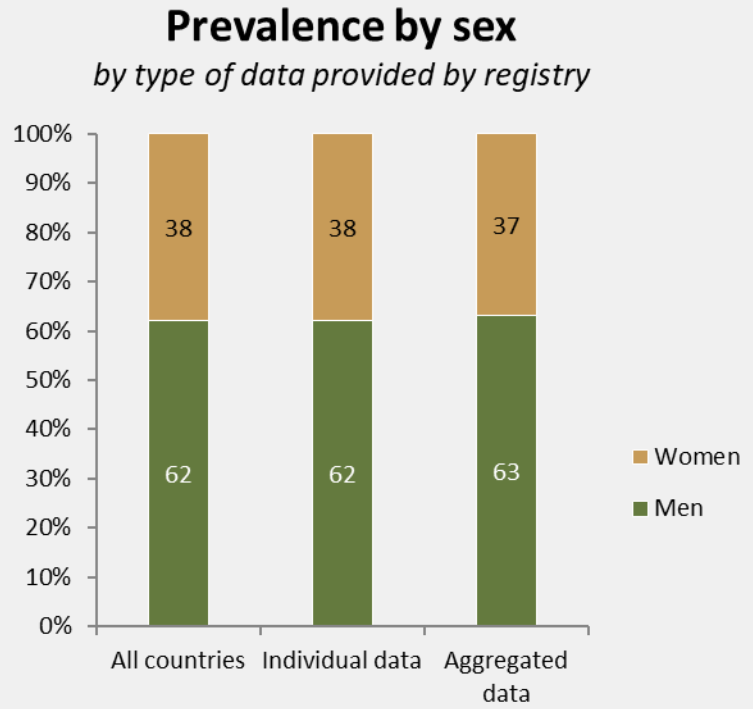
- Prevalent patients on KRT in 2023
  by age category



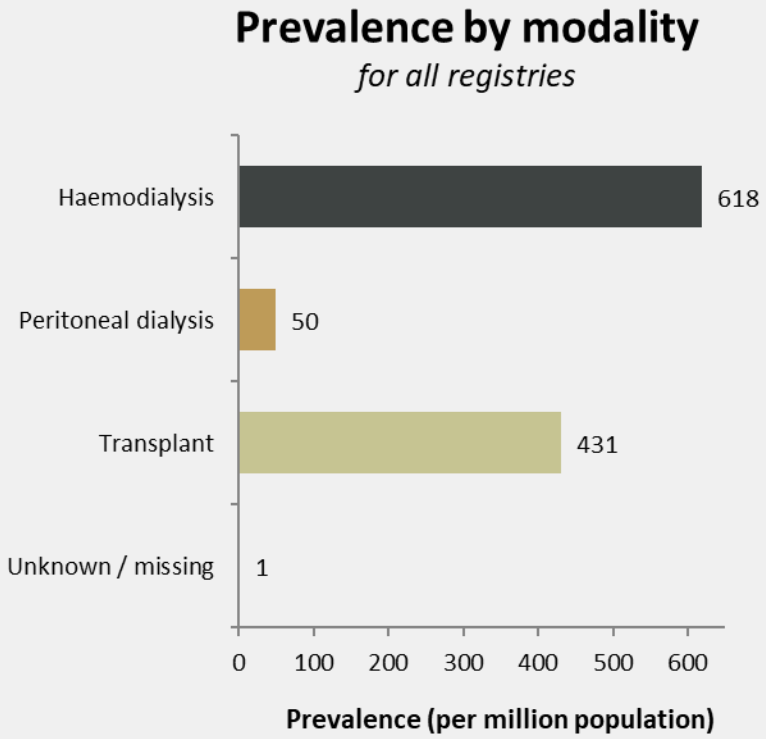


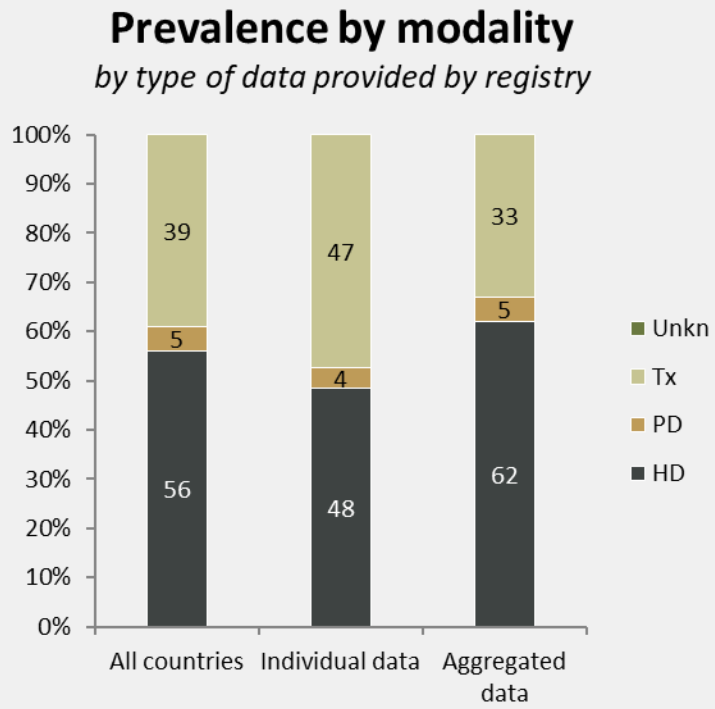
- Prevalent patients on KRT in 2023
- *by sex*





- Prevalent patients on KRT in 2023
  by modality





Distribution of vascular access among countries

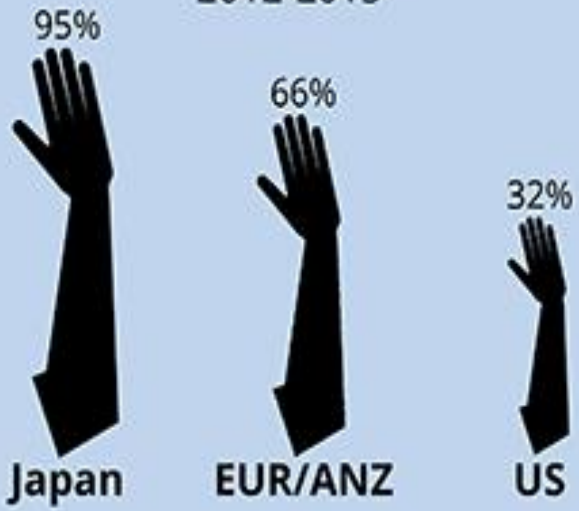
Country/ VA	AVF (%)	AVG (%)	CVC (%)
	**89**	**7.3**	**1.8**
  	75 (65-85)	6	29
	62.5	17.5	20
	27 (33)	14	59

Global dialysis perspective Kidney360 1: 416–419, 2020, Kidney360 2: 344–349, 2020.

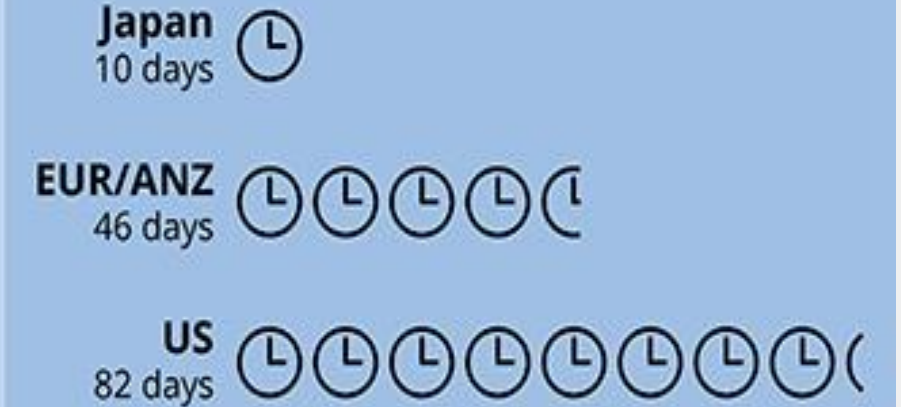
International Differences in Arteriovenous Accesses for Hemodialysis

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

EUROPE

Vascular access overview

- Europe historically AVF dominant
- Large variation between countries
- AV graft use consistently low

ERA Registry, Dopps, National registries

Geographic distribution

- Southern & Central Europe: High AVF use
- Northern & Western Europe: Higher CVC prevalence

Trends in VA since 2000

- Modest decline in AVF prevalence
- Progressive rise in CVC use
- AVG remains uncommon

ERA Registry, DOPPS, National registries

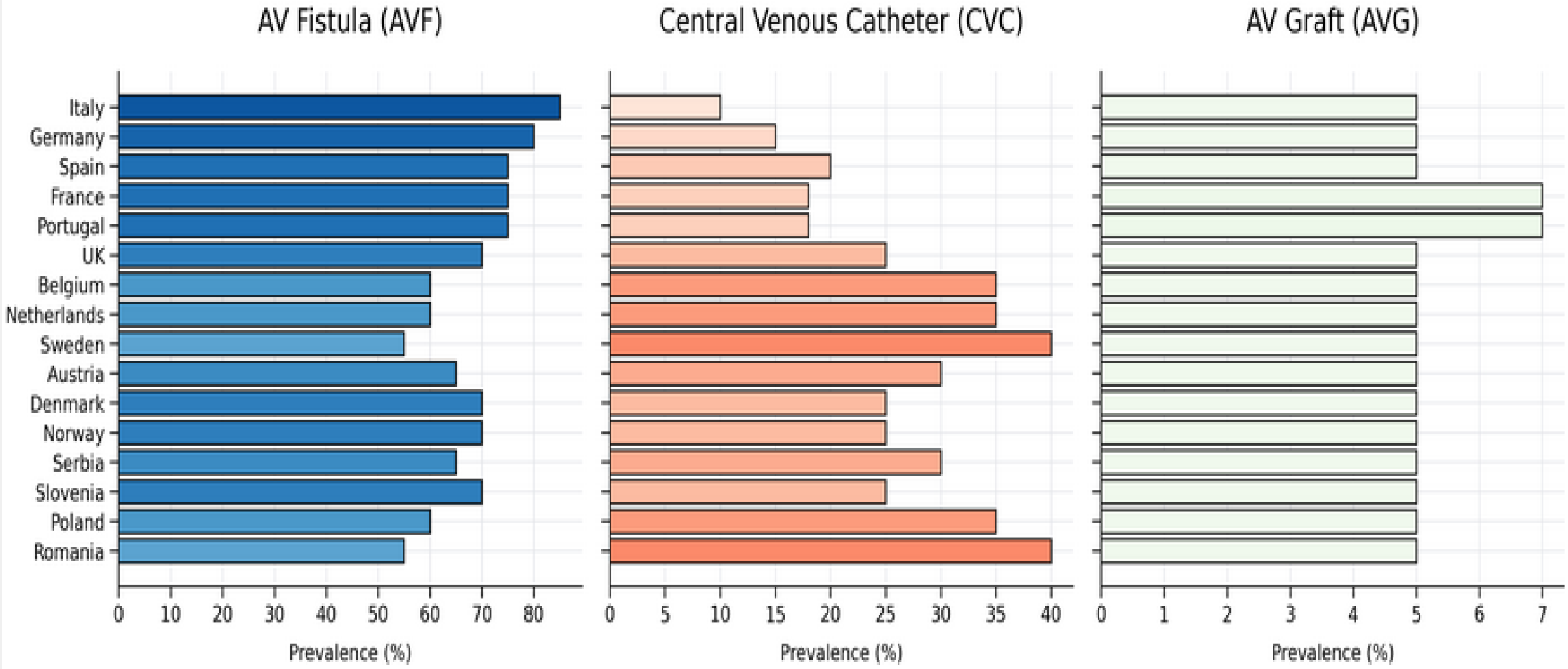
Comparison between regions

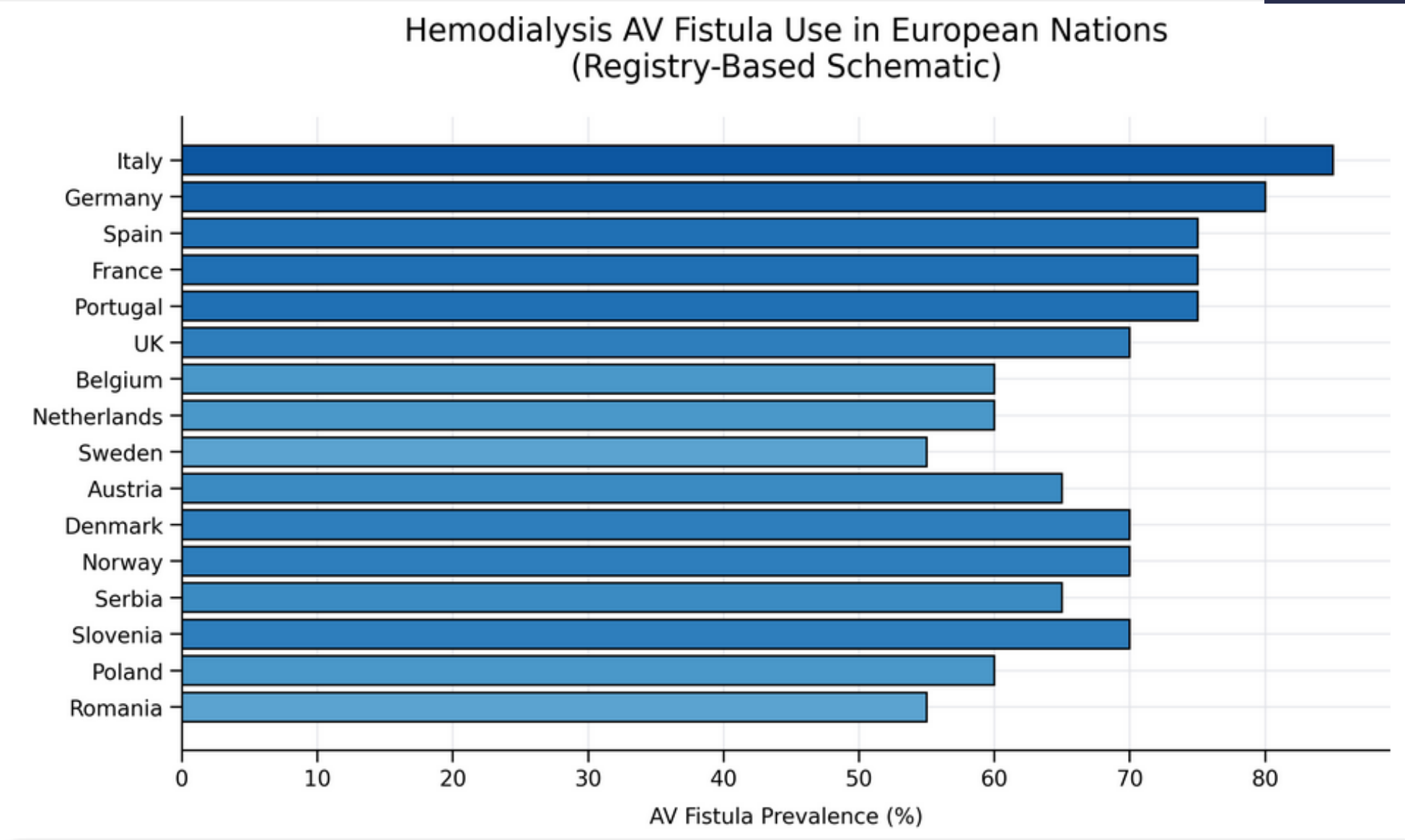
Prevalent Hemodialysis Patients

Region	2000	2025	Dominant Trend
Japan	AVF ~90%	AVF ~90–95%	Stable excellence
Europe	AVF ~75–85%	AVF ~50–75%	AVF ↓, CVC ↑
USA	AVF ~20–25%	AVF ~60–65%	AVF ↑, AVG ↓

ERA Registry, DOPPS, National registries

Vascular Access Distribution in European Nations
Registry-based schematic (ERA / DOPPS aligned)




Hemodialysis AV Fistula Use in European Nations
(Registry-Based Schematic)
Italy
Germany
Spain
France
Portugal
UK
Belgium
Netherlands
Sweden
Austria
Denmark
Norway
Serbia
Slovenia
Poland
Romania
0
10
20
30
40
50
60
70
80
AV Fistula Prevalence (%)

European Vascular access timeline summary

Period	AVF	CVC	Message
2000–2004	Very high	Low	AVF-first culture
2005–2009	↓	↑	Registry-documented shift
2010–2015	Variable	↑	North–South divergen
2016–2025	Stable but lower	Persistently high	Patient-centered equilibrium

National Renal Registries with Access Data

Country	Registry	Notes
United Kingdom	UK Renal Registry (UKRR)	Detailed incident & prevalent access reporting
France	REIN Registry	Strong access and survival linkage
Italy	Italian Dialysis Registry	Very high AVF representation
Spain	REER / Regional registries (e.g. Catalonia)	Robust AVF data, regional granularity
Germany	QuaSi-Niere / Registry data	High AVF prevalence
Belgium	ERA + national datasets	Higher catheter reporting
Sweden	Swedish Renal Registry	High-quality longitudinal data
Norway	Norwegian Renal Registry	Complete national capture
Netherlands	Dutch Renal Registry (RENINE)	Emphasis on access at start
Austria	Austrian Dialysis Registry	Comparable central European data
Slovenia	Slovene Renal Registry	High AVF use despite small population

Diversity

- Japan: stable AVF ≥90%
- **Europe: intermediate, increasing catheter use**
- USA: policy -driven AVF increase

Any other progress in Europe?

- The new ESVS guideline is in the final stages of publication.
- Continued progress, innovation and novelty in the field of vascular access that all previous guidelines (JSDT, GEMAW, ERA, ESVS, KDOQI) have provided.
- For the first time, two key European societies (ESVS and VAS) have joined forces and actively participated in developing this guideline.

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Thank you!

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