Baseline Characteristics And Representativeness Of Participants In The TEACH-PD Trial: A Multi-centre, Pragmatic, Cluster-Randomised Controlled Trial Of Standardised Peritoneal Dialysis (PD) Training Versus Usual Care On PD-related Infections

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Introduction

Peritonitis is important and is related to centre-level factors

- Peritoneal Dialysis (PD) has many advantages over HD
  - despite this PD penetration is falling in most countries around the world.
- PD related infections is the most important complication of PD
  - associated with increased morbidity and mortality
- Considerable variability in peritonitis rates exist between different PD units within individual countries
  - this is more associated with **centre-level factors** rather than patient-level factors

Lan PG et al. CJASN 2014
Htay H et al CJASN 2017
Nadeau-Fredette AC et al PDI 2016

Introduction (cont'd)

Peritonitis is important and is related to centre-level factors

- We do not know what centre level factors account for the differences in PD patient level outcomes
- PD is a unique home-based treatment performed by patients on themselves so it is conceivable that the training of the patients on PD may play an integral role in their clinical outcomes
- There is limited evidence to guide effective training practices in PD (both for training staff and patients).
- As a result there is considerable variability in how training occurs between countries and even within the same country.

Cheetham MS et al. NDT 2022

Zhang L et al. NDT 2016

Boudville N et al Nephrology 2018

Introduction/Methods

- Hypothesis:
  - Standardization of the teaching of PD trainers and new PD patients may reduce the incidence of PD-related infections
- Intervention:
  - The HOME network developed the TEACH-PD training curriculum in conjunction with the AKTN, eLearning curriculum developers, educational experts and consumers. It was also informed by the ISPD guidelines using evidence-based adult learning principles

Methods (cont'd)

- The TEACH-PD trial was a pragmatic, multicenter, binational, parallel arm, registry based, cluster randomized, controlled trial.
- PD units were randomized (1:1) to either implement the TEACH PD training curriculum OR to continue pre-existing training practices for PD trainers and new patients.
- Participants:
  - New to PD
  - 18yo and older
- Data collection:
  - ANZDATA, and New Zealand PD registries and a purpose-built REDCap database

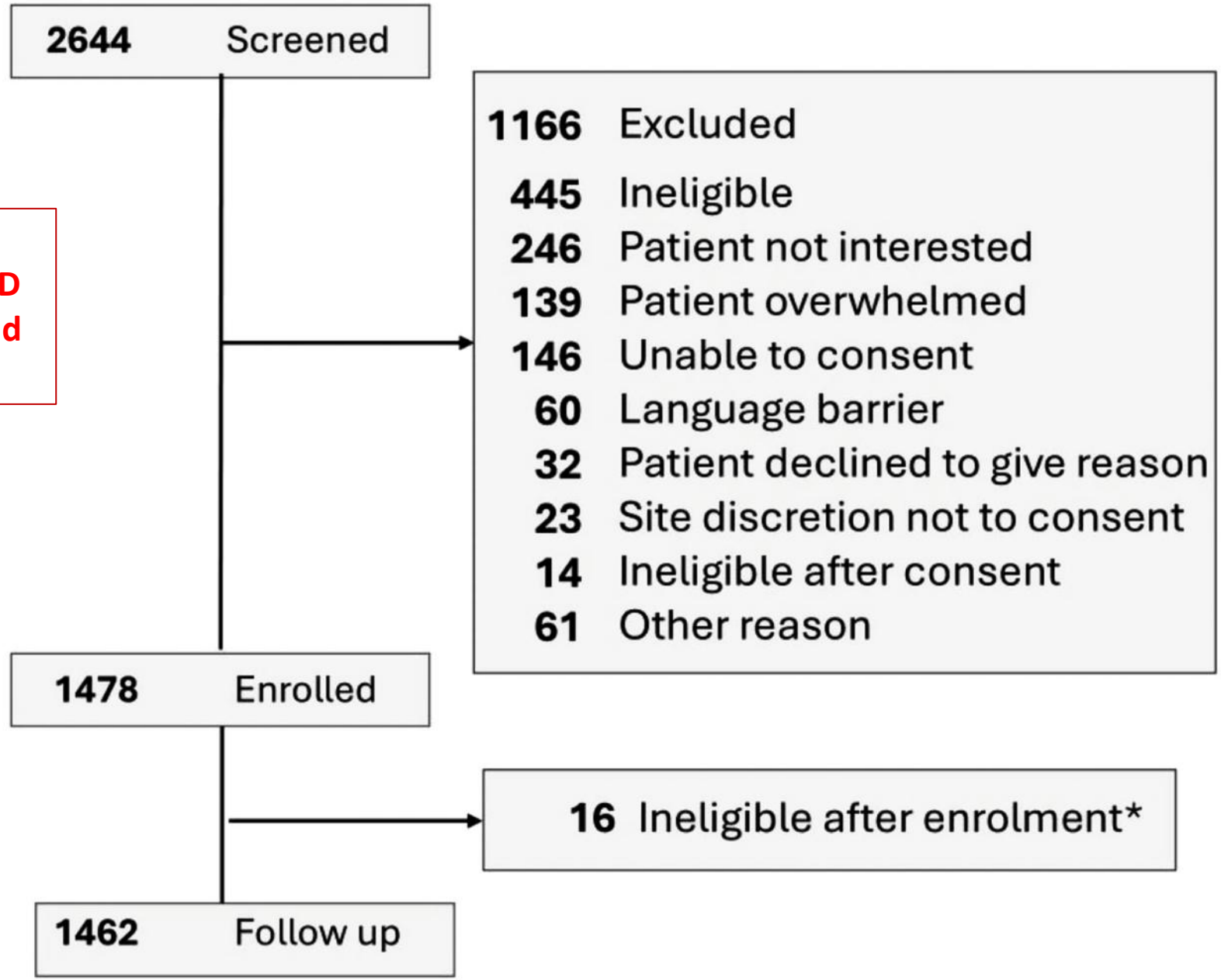
Chow JSF Trials 2023

- **This trial has completed recruitment and follow-up was completed earlier in 2025**

- **AIM FOR TODAY:**
  - **To compare the baseline characteristics of the TEACH-PD participants with the rest of the PD population in Australia and New Zealand**

Results

5987 patients commenced PD in Australia and New Zealand



AUSTRALASIAN KIDNEY TRIALS NETWORK

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Results

- Average number of participants per cluster in TEACH-PD was 34.8
- TEACH PD participants
  - Median age was 61.7 years
  - 2/3 were male
  - 57% were European ethnicity, 12% Indigenous
  - 44% had DM
  - 25% had coronary artery disease

Characteristic	TEACH-PD		ANZDATA	
	N	Statistic	N	Statistic
Country	1,462		4,522	
Australia	1,462	1,106 (76%)		3,552 (79%)
New Zealand	1,462	356 (24%)		970 (21%)
Age (years)	1,462	61.7 [48.3–71.4]	4,522	61.0 (49.0–71.0)
Sex	1,462		4,522	
Male	1,462	931 (64%)		2,881 (64%)
Ethnicity	1,450		4,445	
European	1,462	826 (57%)		2,467 (56%)
Asian	1,462	213 (15%)		694 (16%)
New Zealand Māori	1,462	124 (8.6%)		340 (7.6%)
Pacific Peoples	1,462	96 (6.6%)		321 (7.2%)
Indian	1,462	64 (4.4%)		175 (3.9%)
Aboriginal or Torres Strait Islander	1,462	48 (3.3%)		218 (4.9%)
African or Middle Eastern	1,462	38 (2.6%)		115 (2.6%)
Arab	1,462	30 (2.1%)		74 (1.7%)
Other	1,462	11 (0.8%)		41 (0.9%)
Current smoker	1,462	159 (11%)	4,473	517 (12%)
Body mass index (kg/m^2)	1,462	27.2 [23.8–31.6]	4,458	27.4 [23.8–31.5]
Serum creatinine (mg/dL)	1,462	610 [492–780]	4,458	612 [485–799]

Primary kidney disease	1,462		4,500	
Diabetes-related nephropathy	1,462	493 (34%)		1,731 (38%)
Glomerular disease	1,462	397 (27%)		1,106 (25%)
Hypertension/vascular disease	1,462	166 (11%)		557 (12%)
Familial/hereditary	1,462	140 (9.6%)		314 (7.0%)
Tubulointerstitial	1,462	122 (8.3%)		314 (7.0%)
Miscellaneous	1,462	118 (8.1%)		382 (8.5%)
Other	1,462	26 (1.8%)		96 (2.1%)
Coexisting medical conditions	1,462			
Diabetes	1,462	640 (44%)	4,490	2,247 (50%)
Chronic lung disease	1,462	140 (9.6%)	4,494	541 (12%)
Coronary artery disease	1,462	353 (24%)	4,493	1,273 (28%)
Peripheral vascular disease	1,462	209 (14%)	4,496	803 (18%)
Cerebrovascular disease	1,462	124 (8.5%)	4,495	383 (8.5%)
History of cancer	1,462	174 (12%)	4,473	534 (12%)

Results

- TEACH-PD participants were similar to ANZDATA cohort based on:
  - Country of residence
  - Age
  - Sex
  - Ethnicity
  - BMI
  - Smoking status
  - Cause of kidney failure
  - Co-morbidity (DM, IHD. CVD, PVD, chronic lung dse, cancer)

Conclusions

- The TEACH-PD trial was designed to be pragmatic with broad eligibility criteria
- This has led to the TEACH-PD trial participants being very similar to the total PD population in Australia and New Zealand
- Therefore the results of the TEACH-PD trial (the largest randomized controlled intervention trial on PD patients in the world) can be viewed as being generally applicable to all PD patients in Australia and New Zealand

AUSTRALASIAN KIDNEY TRIALS NETWORK

The TEACH-PD Investigators members

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Thank you

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