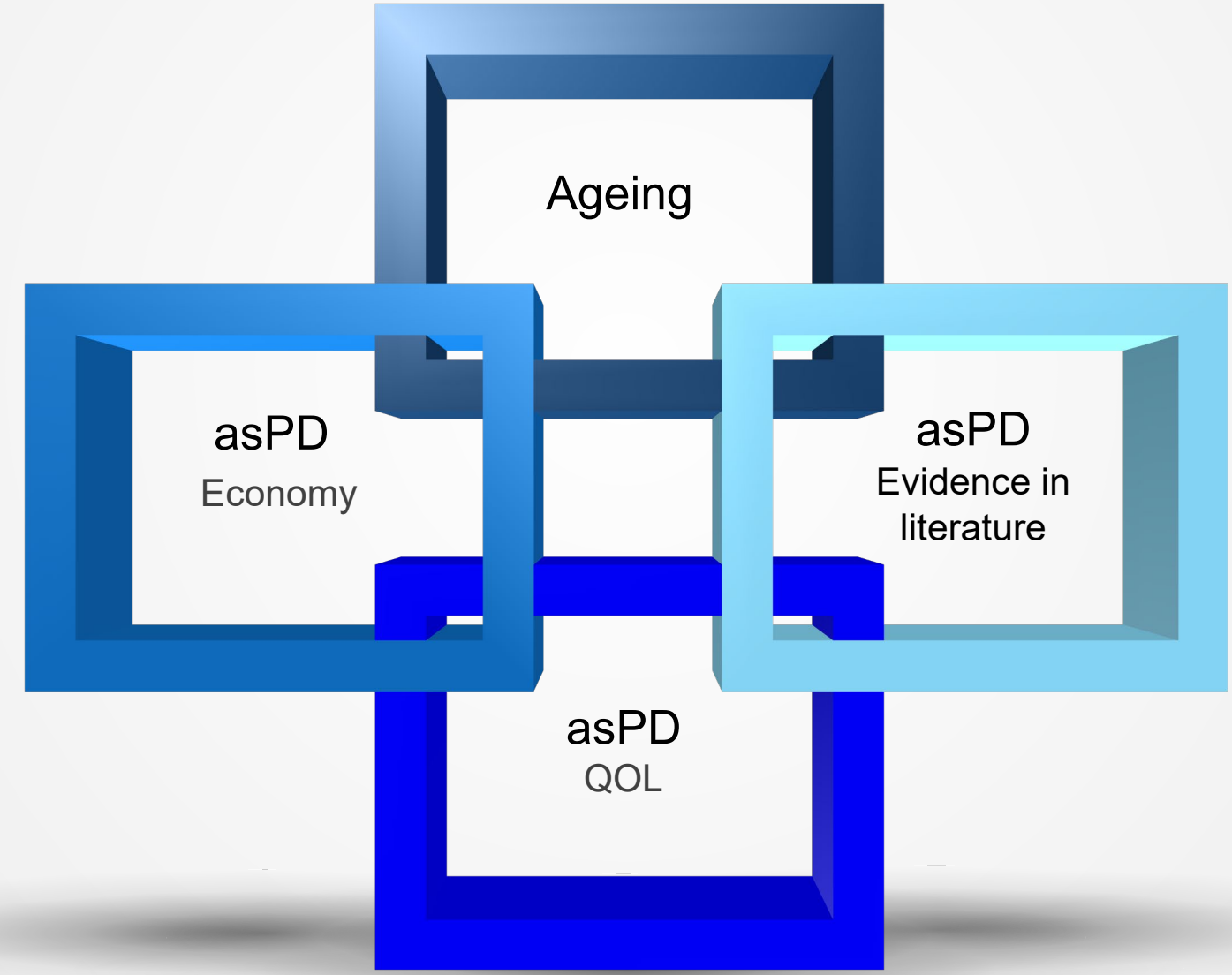
Peritoneal dialysis bij ouderen



Katrien De Vusser
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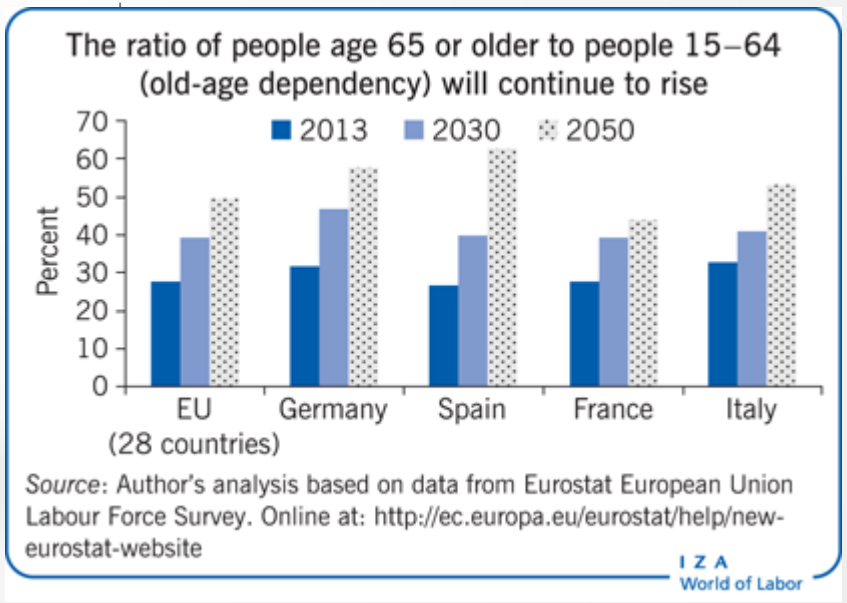
Ageing

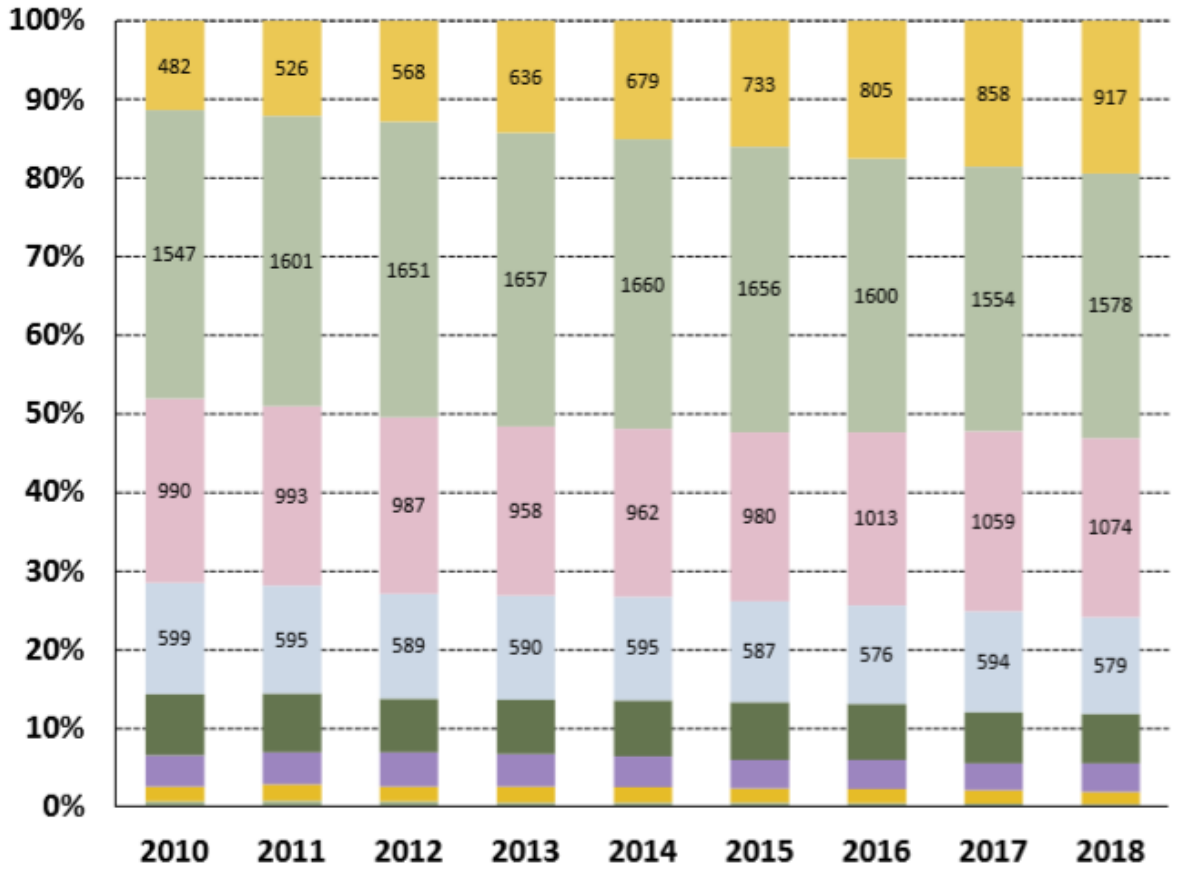
Hot topic

✓ **Ageing of Europe**,
also known as the **greying of Europe**

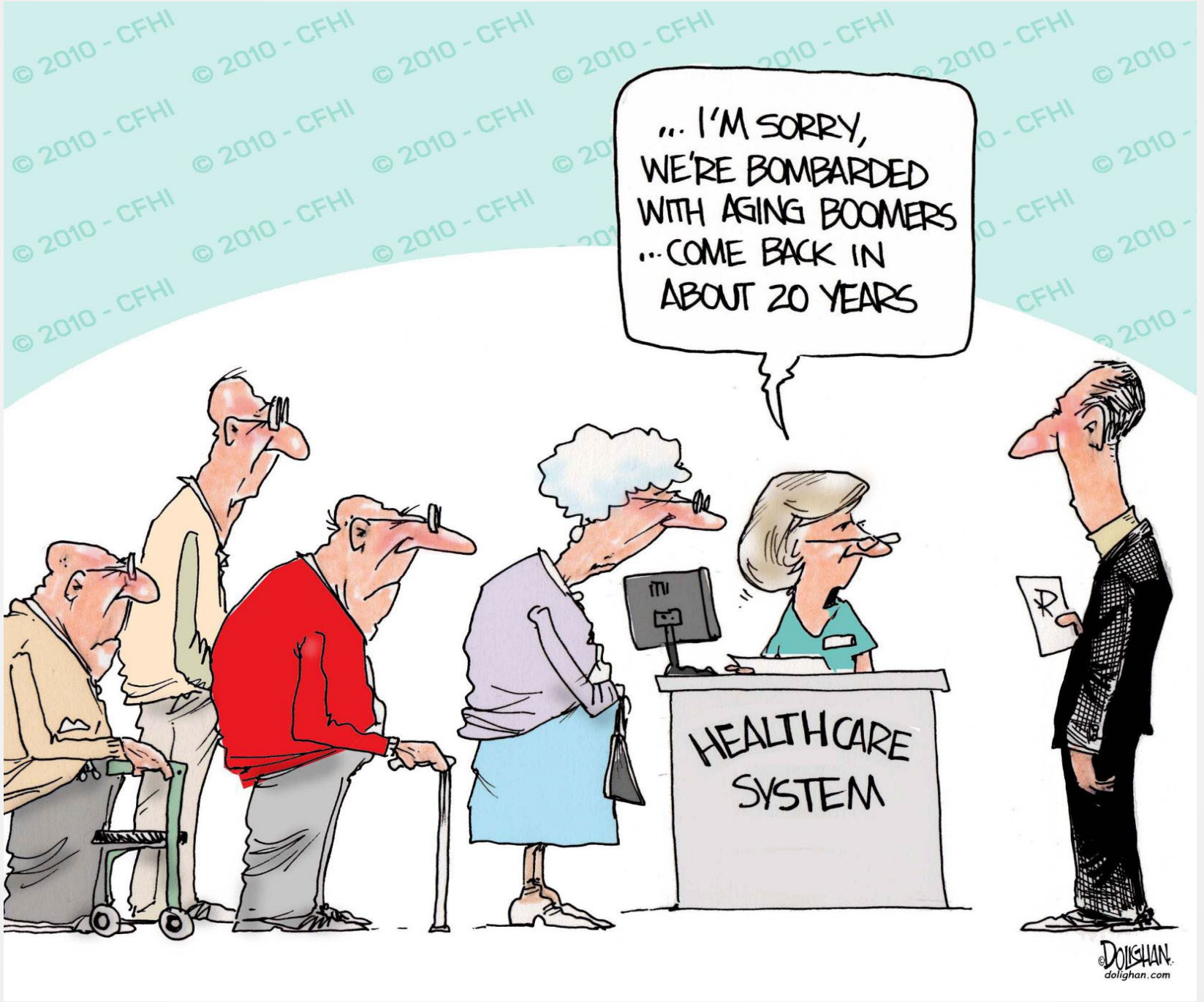




NBVN 2018



Leeftijdscategorie (jaar)									
Totaal aantal patiënten met nierfunctie-vervangende therapie op 1 januari	4228	4344	4403	4450	4511	4566	4600	4626	4707

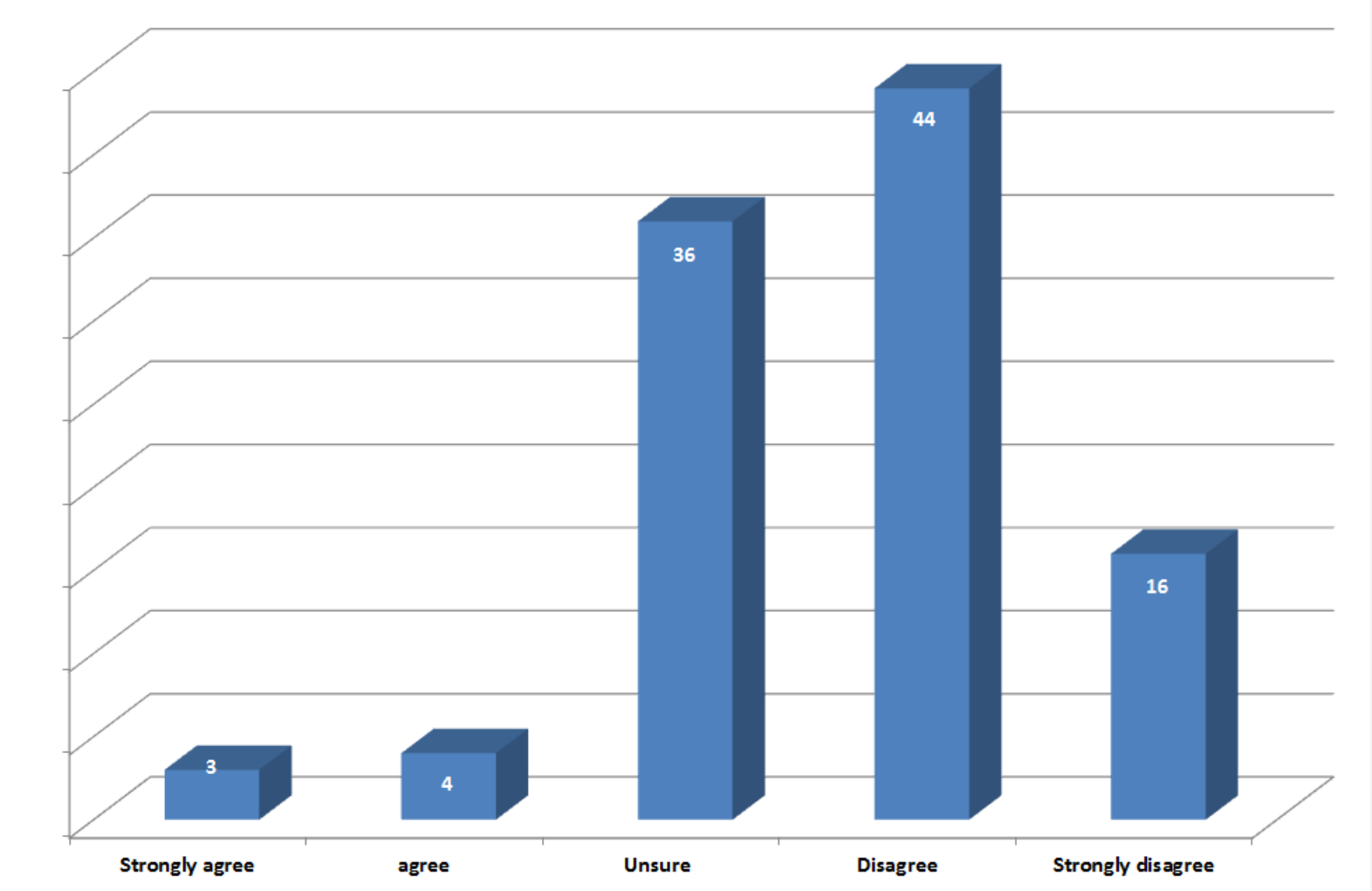

... I'M SORRY, WE'RE BOMBARDED WITH AGING BOOMERS ... COME BACK IN ABOUT 20 YEARS
HEALTHCARE SYSTEM
DOLIGHAN
dolighan.com
© 2010 - CFHI



“Young men be not proud in the presence of a decaying old man; he was once that which you are, he is now that which you will be.”

Clement III (reigned 1187-1191) Returned Papacy to Rome by signing treaty with Roman citizens to allow them their own magistrates. Died age 61

✓ Is HD the optimal dialysis modality for older patients?

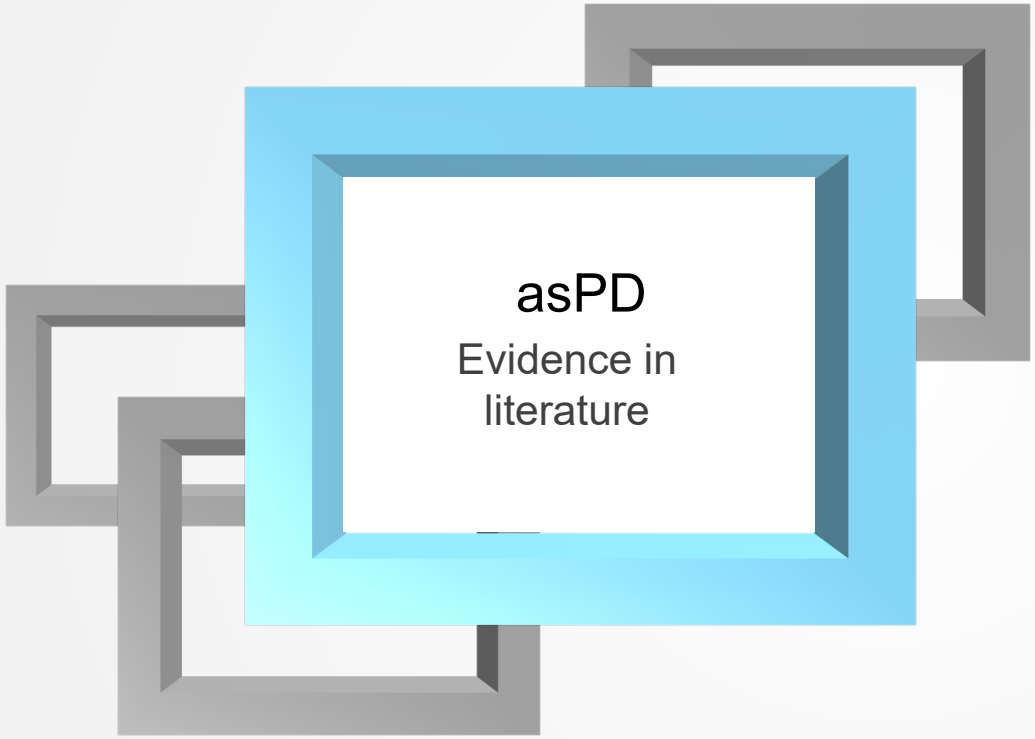


114 questionnaires, British Renal Society 2015

Cijfers 2018 nbvn

NBVN	prevalentie 01/01/2019							
	0-17	18-40	40-49	50-59	60-69	70-79	>=80	totaal
HD	**0**	**143**	**192**	**386**	**691**	**1370**	**1587**	**4369**
HC			*80*	*110*	*224*	*405*	*853*	*1055*	*2727*
LC			*46*	*56*	*132*	*265*	*500*	*527*	*1526*
Nacht			*11*	*18*	*18*	*14*	*9*	*3*	*73*
Thuis			*6*	*8*	*12*	*7*	*8*	*2*	*43*
PD	**1**	**34**	**39**	**42**	**69**	**102**	**69**	**356**
APD		*1*	*26*	*26*	*26*	*48*	*62*	*41*	*230*
CAPD			*8*	*13*	*16*	*21*	*40*	*28*	*126*
Dialyse	**1**	**177**	**231**	**428**	**760**	**1472**	**1656**	**4725**
Txp		**327**	**454**	**831**	**1095**	**677**	**165**	**3549**
Totaal	**1**	**504**	**685**	**1259**	**1855**	**2149**	**1821**	**8274**
HD	0,0%	80,8%	83,1%	90,2%	90,9%	93,1%	95,8%	92,5%
HC			56%	57%	58%	59%	62%	66%	62%
LC			32%	29%	34%	38%	36%	33%	35%
Nacht			8%	9%	5%	2%	1%	0%	2%
Thuis			4%	4%	3%	1%	1%	0%	1%
PD	100,0%	19,2%	16,9%	9,8%	9,1%	6,9%	4,2%	7,5%
APD			76%	67%	62%	70%	61%	59%	65%
CAPD			24%	33%	38%	30%	39%	41%	35%
Dialyse	100,0%	35,1%	33,7%	34,0%	41,0%	68,5%	90,9%	57,1%
Txp	0,0%	64,9%	66,3%	66,0%	59,0%	31,5%	9,1%	42,9%

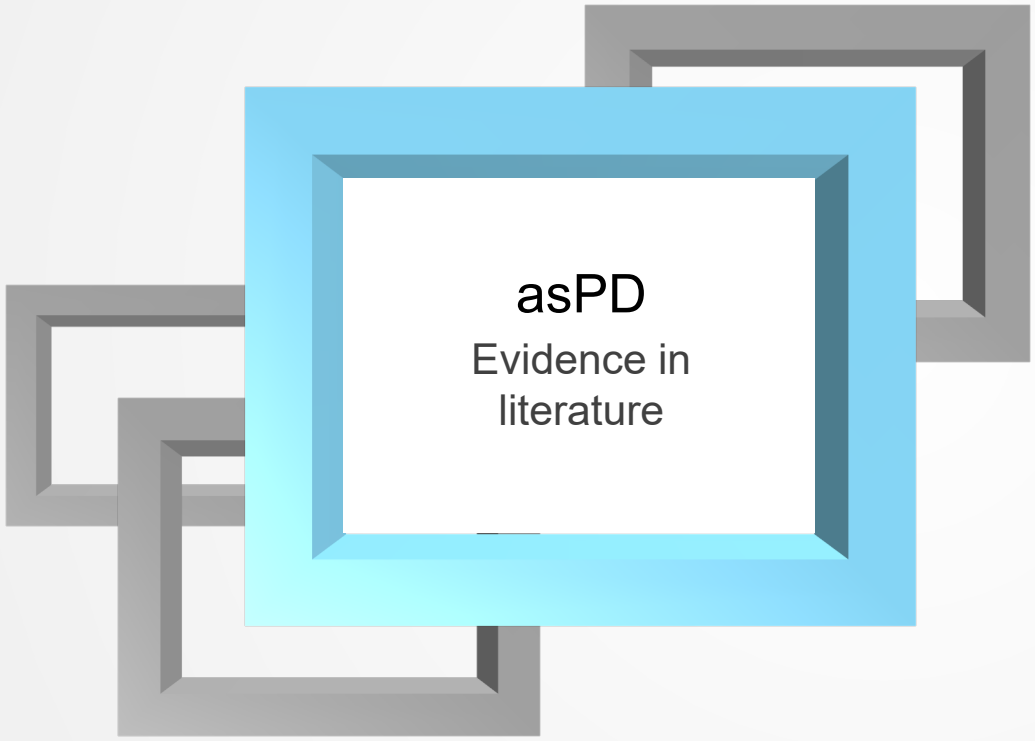
Cijfers NBVN Dr Johan De Meester 5/2019



Peritoneal dialysis

- ✓ At home (HD 47.5% of time in the hospital
- ✓ Hemodynamic tolerance is much better
- ✓ No vascular acces needed (challenge in the elderly population)
- ✓ Residual renal function
- ✓ Incremental PD

Home care assistance and the utilization of peritoneal dialysis Oliver et al 2007 KI



Peritoneal dialysis

- ✓ Independence
- ✓ Strength to lift the bags
- ✓ Vision impairment
- ✓ Fear
- ✓ Impaired cognition
- ✓ Immobility
- ✓ Social conditions
- ✓ Takes time to have discussions about treatment choices and give information so PD not offered or discussed!!

Home care assistance and the utilization of peritoneal dialysis Oliver et al 2007 KI

asPD

How to overcome
the difficulties

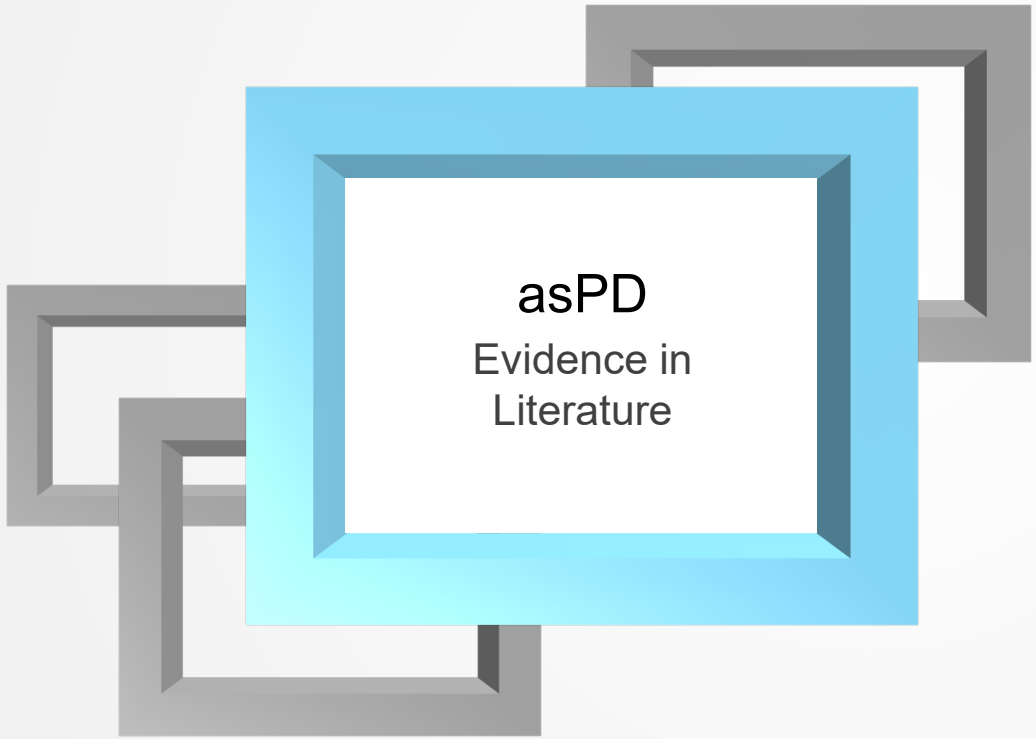
Solution = Assisted pd



HAEMODIALYSIS

- ✓ Familiar with HD; complications regarded as part of treatment
- ✓ Well-established pathways so easy to organize
- ✓ Very few medical contraindications so less need to assess patient for medical and psycho-social eligibility
- ✓ Many older patients find it difficult to make decisions and too many barriers to education so takes less time just to put patient on to HD – or keep patient on HD if presenting acutely

Home care assistance and the utilization of peritoneal dialysis Oliver et al 2007 KI



- ✓ Clinical outcomes
  - ✓ Survival
  - ✓ Peritonitis rates
  - ✓ Morbidity

Clinical outcomes – Peritonitis rate

- ✓ Observational studies 1990 ‘s
- ✓ Age is not a major risk factor
- ✓ Peritonitis rate similar > < 65 y

- ✓ > 70 y elevated peritonitis rate
- ✓ Similar peritonitis-free survival
- ✓ Similar Exit site infections rate
- ✓ Elderly patients have superior technique survival

Peritoneal dialysis-related infection in the older population Szeto PDI 2015

Clinical outcomes – Peritonitis rate

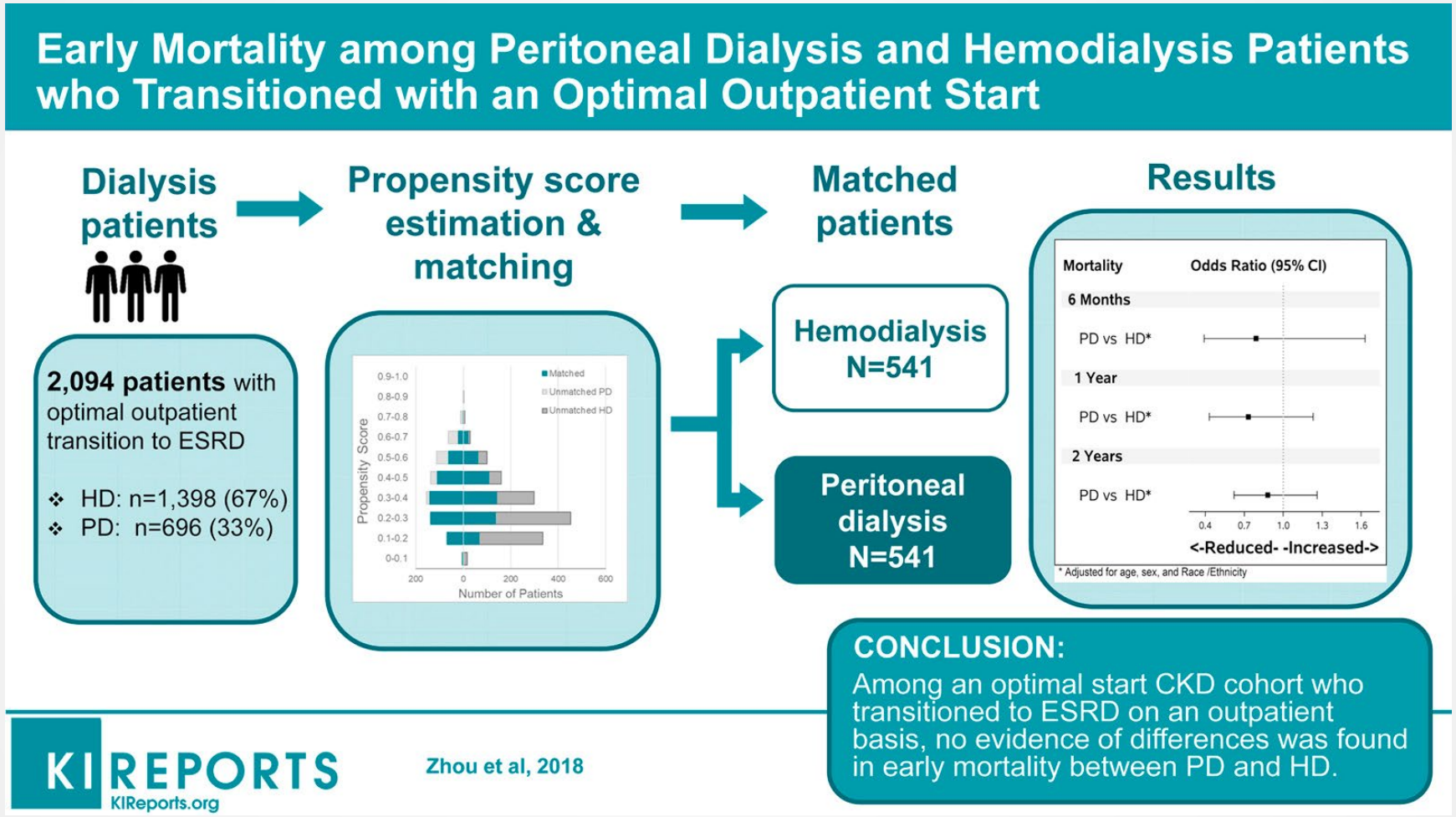
- ✓ Main concern ‘Training of the home nursing team’
- ✓ 2 little studies described no difference

- ✓ Less peritonitis in assisted group (APD 2 times nursing assistance) → peritonitis rate 1/28 patient months versus 1/25

- ✓ > 75 y elevated short-term mortality
- ✓ High burden of comorbidities increases the risk of relapsing episodes
- ✓ Technical problems, social difficulties and concomitant comorbid diseases (treatment)

Compared with Younger Peritoneal Dialysis Patients, Elderly Patients Have Similar Peritonitis-Free Survival and Lower Risk of Technique Failure, But Higher Risk of Peritonitis-Related Mortality. Lim et al PDI
Peritoneal dialysis-related infection in the older population Szeto PDI 2015

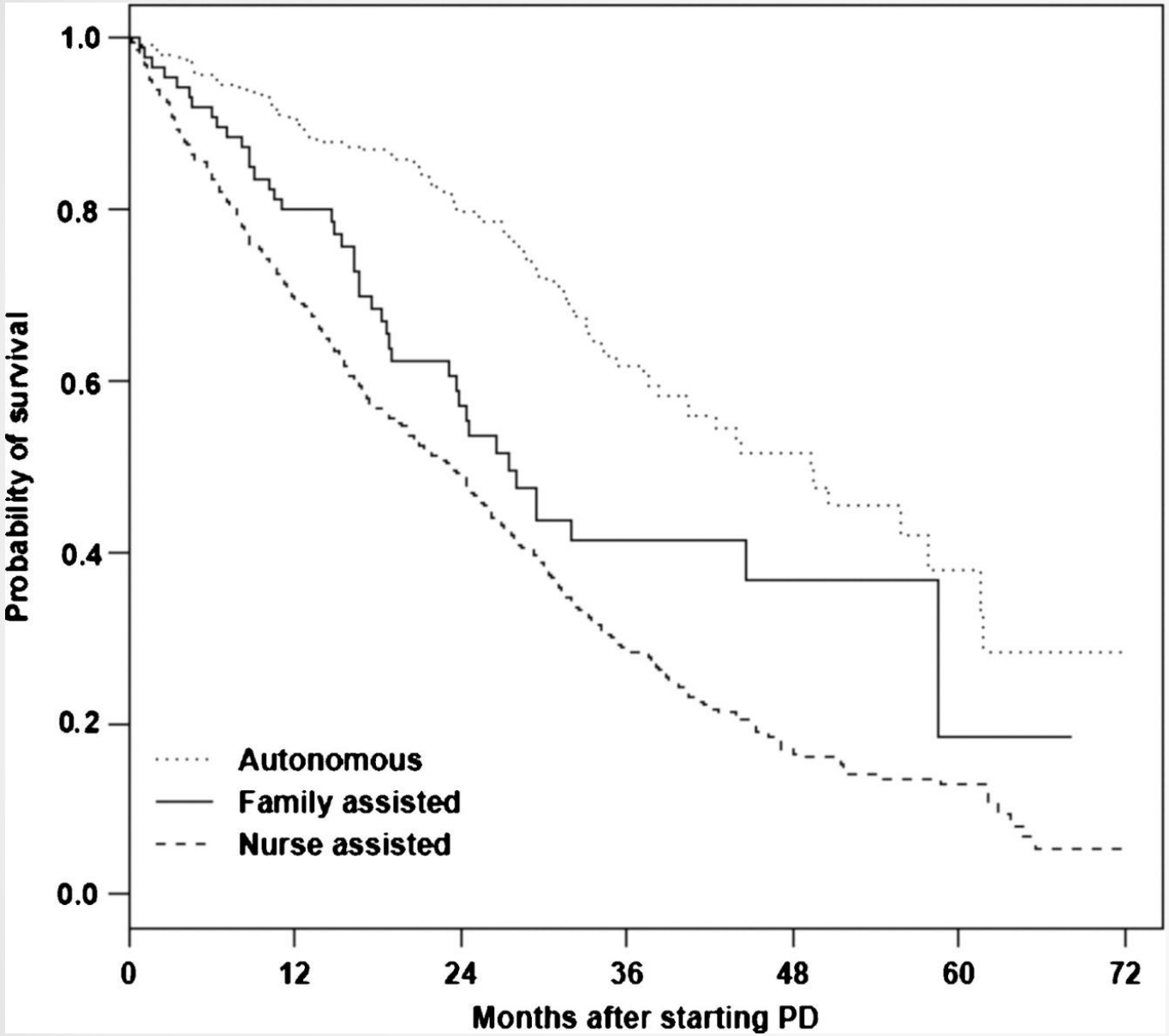
Clinial outcomes survival



Clinical outcomes- Survival

- ✓ Some studies favor HD
- ✓ Some studies favor PD
- ✓ Two risk factor in the elderly
  - Diabetes mellitus
  - Longer dialysis duration
  - Cave! Risk malnutrition

Dialysis and mortality in the Elderly: A meta analysis. Han et al cjasn 2015



Median survival:
Autonomous – 48m
Family assisted – 26m
Nurse assisted – 24m

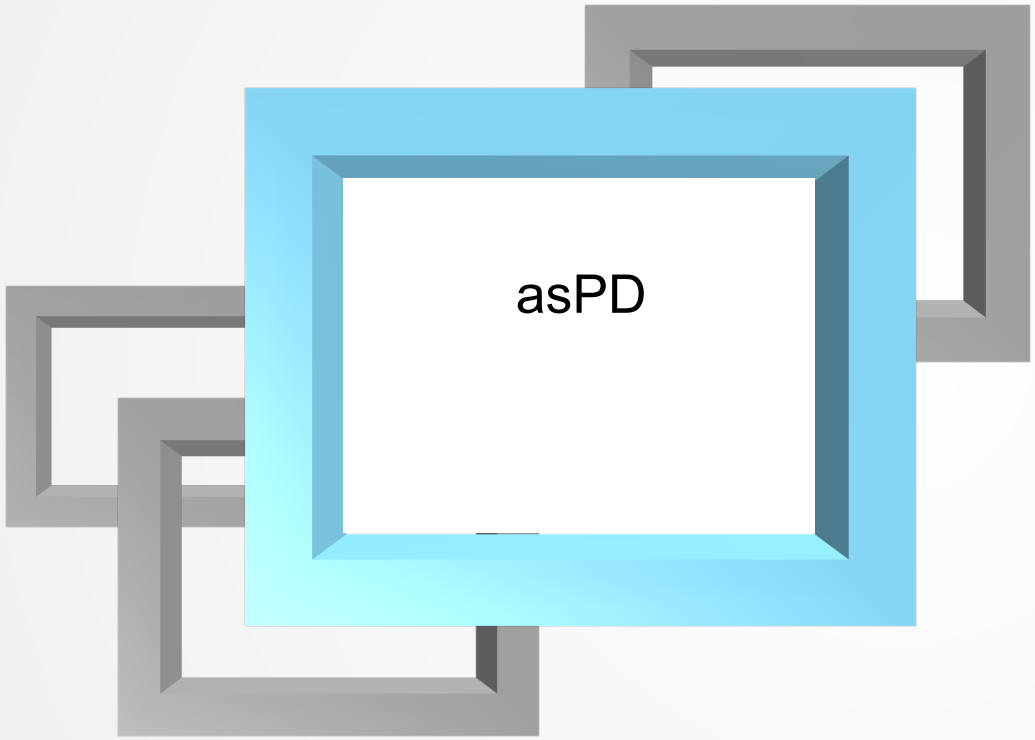
Median survival in HD
75 yrs+: 22 m
(registry data base)

Castrale, C. et al. Nephrol. Dial. Transplant. 2009 French registry

Clinical outcomes – morbidity

- ✓ North Thames dialysis study (200 pt HD vs PD) > 70 y
- ✓ 12 month prospective cohort study
- ✓ 26.1 vs 26.4 deaths/100 persons/year
- ✓ 1.9-2.0 admissions/person/year
- ✓ No difference mortality risk at 12 months
- ✓ Main causes Peritonitis and acces related infection

Peritoneal dialysis-related infection in the older population Szeto PDI 2015



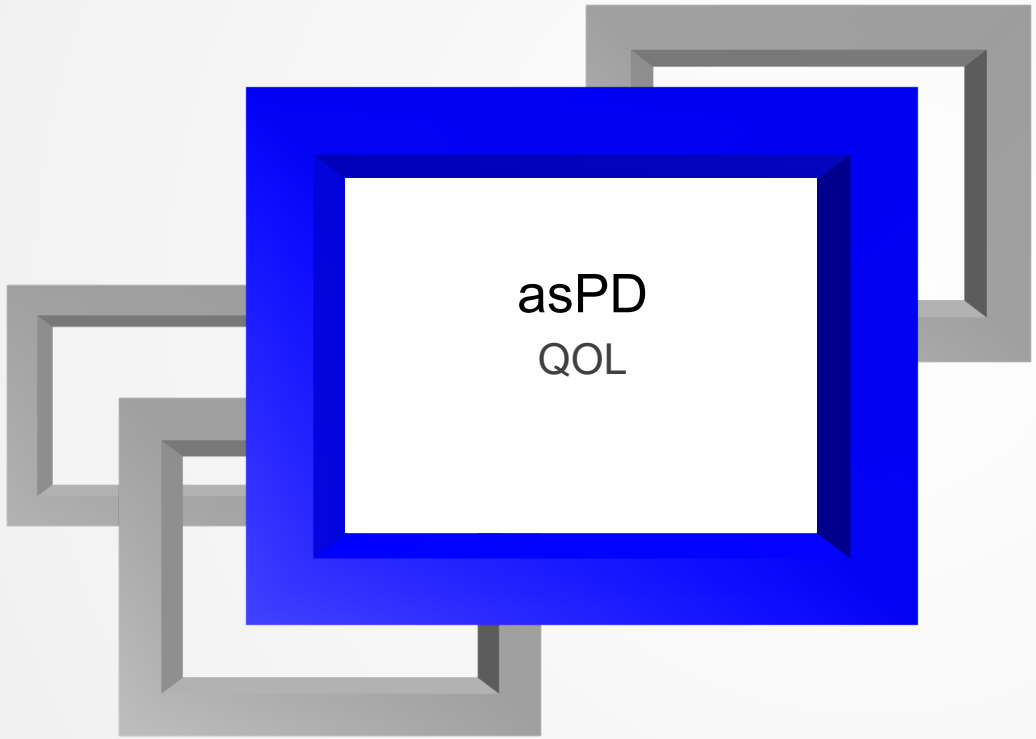
- ✓ CAPD APD
- ✓ 2 visits/4 visits
- ✓ Training
- ✓ Nurse/private/health system/family/maid

World wide experience asPD

Some Practical Aspects of asPD Programs

Country	Type of PD provided	Caregiver	Type of training	Adjunctive measures
France (8,9)	CAPD APD	Private nurse (reimbursed directly by the French healthcare insurance)	2 training sessions in public nephrology department	Home visits provided by dialysis center
Denmark (9,10)	APD (twice-a-day visits, gradually promoted to once daily)	Community nurse (public paid) Nursing home staff	2.5 hours theoretical at PD center 2.5 hours practical at patient's home or at nursing home	24-hour-a-day, 7-day-a-week telephone backup service for advice and support for patients and their assistants
Italy (11)	CAPD APD	Nurse assistants (public paid)	20 theoretical-practice hours (5 lessons, 4 hours each)	Message- and image-sending to dialysis centre thought smart phone applications
Canada (7)	CAPD (2 of 4 exchange assisted) APD (twice-a-day visits, gradually promoted to once daily)	Mixed model of assistance based on patient complexity (Professional and registered practice nurses)	Not specified	Regular telephone communication between assistant nurse and hospital
Brazil (12)	APD	Nurse assistants (paid by the GAMEN renal clinic)	20 theoretical-practice hours	Not known
China (13)	CAPD	Family member or home assistant (paid by employer)	10–14 theoretical-practice hours	Retraining sessions and periodical group meeting held by nurse, dieticians or physicians

World wide experiences with assisted peritoneal dialysis. Giuliani et al 2017 PDI



QOL in the elderly

- ✓ 2 main factors
  - ✓ No symptoms
  - ✓ Independence
- ✓ 3 main studies
  - ✓ North thames dialysis study
  - ✓ BOLDE study
  - ✓ FEPOD study

Unadjusted quality of life outcomes in older PD and HD patients

Quality of life assessments	PD		HD		
	n		*n*		P-value
SF-12 PCS[a], mean (SD)	70	36 (12.1)	70	34.3 (9.7)	0.263
SF-12 MCS[a], mean (SD)	70	55.0 (8.4)	70	51.3 (12.9)	0.046
IIRS, median (IQR)	69	22.0 (15.0)	70	26.0 (19.0)	0.006
HADS: depression, median (IQR)	70	4.0 (5.0)	70	6.0 (5.0)	0.003
HADS score >8; prevalence of possible depression (%)	70	10	70	26	0.015

a A higher score indicates better quality of life.

✓ PD had better SF-12 MCS scores (P = 0.046) with significantly less possible depression (P = 0.015) and illness intrusion (P = 0.006)

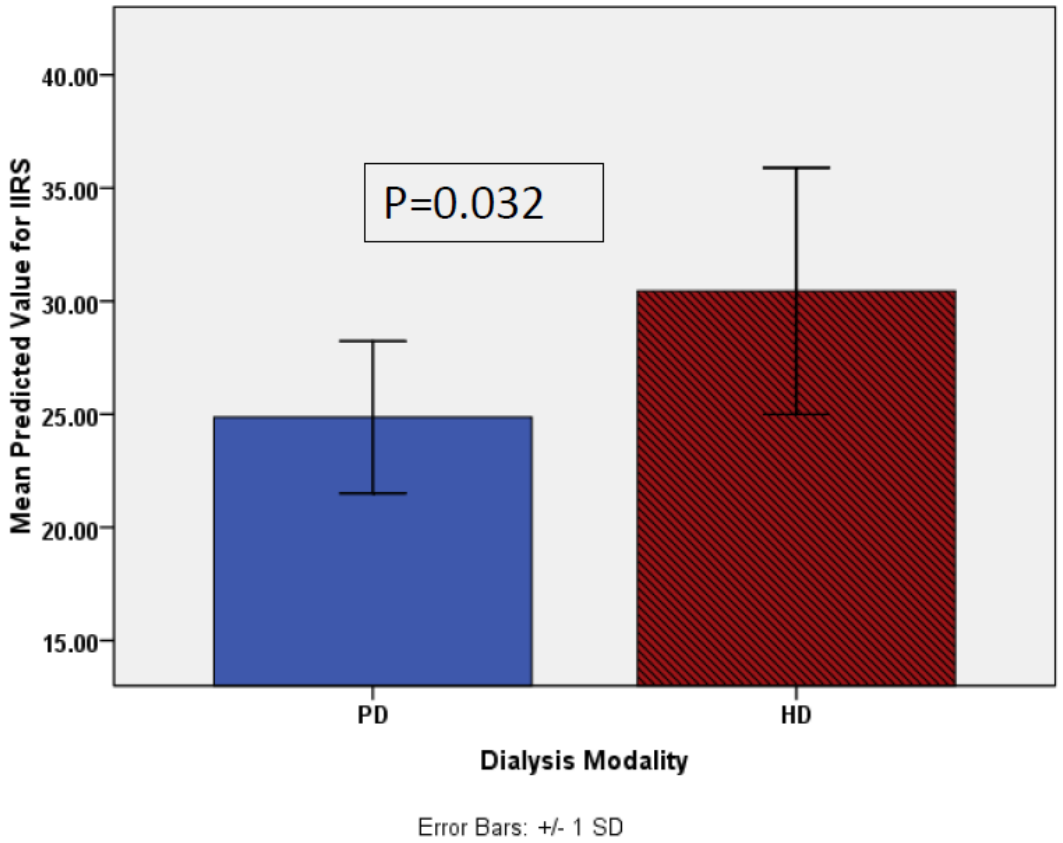
✓ Total number of symptoms was also significantly lower in PD than HD patients (8.6 and 9.7, respectively, P = 0.039

✓ HD patients experienced greater intrusion of the illness and/or their treatment in relation to their health (P = 0.001) and diet (P ≤ 0.0001) compared to those on PD.

Brown *et al* NDT 2010

Peritoneal dialysis: older patients report better quality of life than Brown 2015

BOLDE: Adjusted Illness Intrusion Ratings Scores for PD and HD



Significantly less illness intrusion in PD

Brown EA et al, NDT 2010

QOL conservative care vs asPD vs HD

- ✓ Mean age 82 year (84 pt)
- ✓ asPD higher SF12 physical component score
- ✓ asPD lower symptom score
- ✓ Treatment by dialysis improved QOL!

Multivariate analysis using generalized linear models

Outcome variable	Predictors	Exp B (95% CI)	P
SF12 PCS	Age	1.01 (0.99–1.03)	0.10
	Female gender	0.89 (0.78–1.02)	0.10
	Dialysis vintage	1.00 (1.00–1.00)	0.52
	Stoke comorbidity score	1.02 (0.96–1.07)	0.57
	Frailty score	**0.87 (0.83–0.93)**	**<0.01**
	aPD versus CKM	**1.20 (1.00–1.45)**	**0.05**
	HD versus CKM	1.08 (0.89–1.29)	0.45
Symptom score	Age	1.00 (0.97–1.02)	0.70
	Female gender	1.12 (0.90–1.40)	0.32
	Dialysis vintage	1.00 (0.99–1.01)	0.45
	Stoke comorbidity score	1.03 (0.92–1.14)	0.61
	Frailty score	1.07 (0.97–1.19)	0.17
	aPD versus **CKM**	**0.62 (0.43–0.90)**	**0.01**
	HD versus CKM	0.90 (0.66–1.21)	0.48

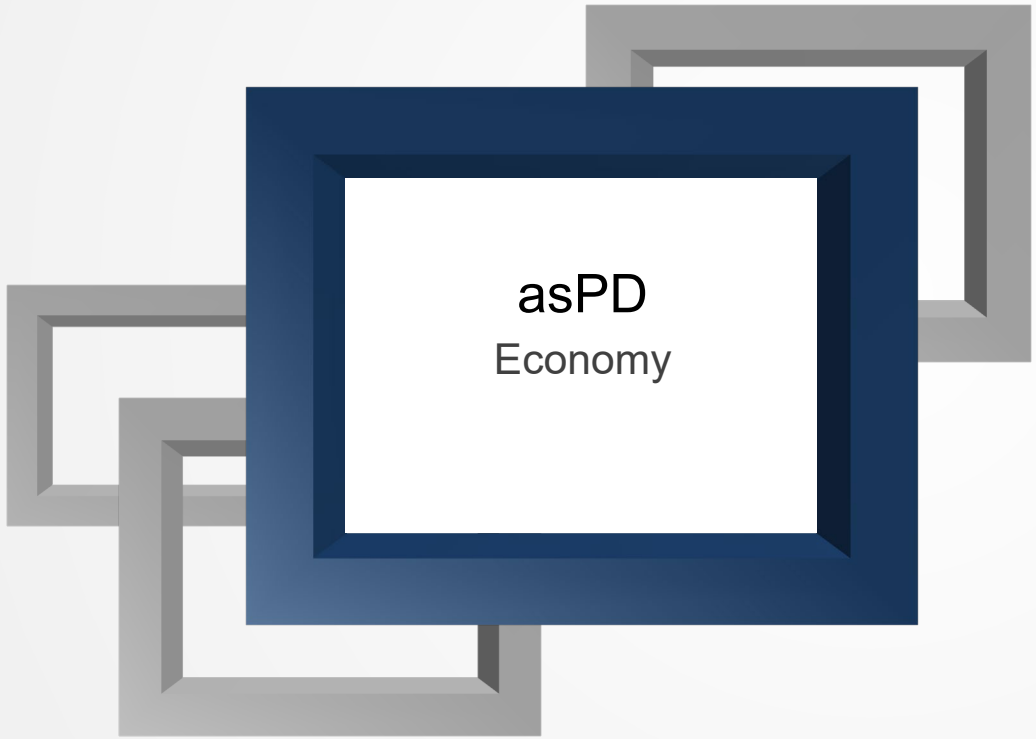
QOL with conservative care compared with asPD and HD. CKJ 2017

QOL PD vs HD

- ✓ 106 asPD matched 100 HD in center
- ✓ QOL in aPD patients were equivalent to those receiving in-center HD.

- ✓ Analysis of older patients (≥65 years < 65 years; 200 pt) had higher comorbidity, lower education and were more dependent on carers to perform PD than younger patients.
- ✓ Despite this worse clinical profile, older patients reported greater satisfaction with care and better QOL than younger patients in selected domains, namely physical and mental components of SF-12 from KDQOL and WHOQOL, and effects of kidney disease from KDQOL. L
- ✓ Levels of anxiety and depression were also lower in older patients.

Brown et al 2015 2019 ISPD
Age is not a contraindication to home-based dialysis – Quality-of-Life outcomes favour older patients on peritoneal dialysis regimes relative to younger patients. Konstadina Griva JAN 2013



- ✓ Cijfers RIZIV
- ✓ Mogelijkheden
- ✓ Ervaring UZ Leuven

- ✓ In geval van *verpleegkundige assistentie* de vergoeding voor de verplaatsing van de thuisverpleegkundige en de verpleegkundige assistentie aan huis. Deze vergoeding bedraagt 30 euro per dag dat assistentie verleend wordt voor peritoneale dialyse en 55 euro per thuishemodialyse waarvoor assistentie verleend wordt. Bij de vergoeding van thuisverpleegkundigen zijn ziekenhuizen verplicht deze bedragen zonder afhoudingen uit te keren.

- ✓ Kostenplaatje: 30 eu / dag ongeacht hoeveel x de thuisverpleging moet komen. Alleen komen in serviceflats, instelling of thuis. Igv van een RVT moet je de verpleging opleiden.

https://www.riziv.fgov.be/nl/professionals/verzorgingsinstellingen/ziekenhuizen/zorg/Paginas/default.aspx#Tegemoetkoming_hemodialyse

Start

- Aanmelding
- Zorgplanning
- Opleiding
- Opvolging
- Evaluatie

Succes !!

- Via mail aanmelden van patient
- Medisch verslag via e-health box

- Contact afdeling en referentieverpleegkundige
- Kennis team bevragen
- Zorg inplannen in wijkteam

- Afspraak pd team uz leuven (wijkteam)
- Eerste zorg samen aan huis bij thuiskomst dialyse
- Team aanwezig : refvpk-vaste vpk – afdelingsverantwoordelijke (wijkteam)

- Contact wacht niercentrum UZ Leuven
- Referentievpk blijft contactpersoon voor UZ Leuven

- Jaarlijks overleg UZ Leuven-WGK
- Gepland bij problemen
- WGK na 1 maand evaluatie wijkteam door lid zorgkwaliteit