

4th selfcaredialysis symposium  
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# Center disparities in the care of PD patients in France

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#NDTCAEN



# Peritoneal Dialysis



APD ou CAPD



Autonomous



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Assisted



[ERBP, Nephrol Dial Transplant 2010; 3:225-233]

# Home nursing care

## ASSISTED PERITONEAL DIALYSIS. EXPERIENCE IN A FRENCH RENAL DEPARTMENT

Thierry Lobbedez, Raluca Moldovan, Marie Lecame, Bruno Hurault de Ligny,  
Wael El Haggan, and Jean-Philippe Ryckelynck

## ASSISTED PERITONEAL DIALYSIS FOR OLDER PEOPLE WITH END-STAGE RENAL DISEASE: THE FRENCH AND DANISH EXPERIENCE

Clémence Béchade,<sup>1</sup> Thierry Lobbedez,<sup>1</sup> Per Ivarsen,<sup>2</sup> and Johan V. Povlsen<sup>2</sup>

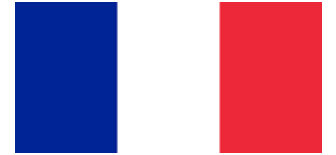
## Relieving families of the burden of disease

### Dialysis Therapies

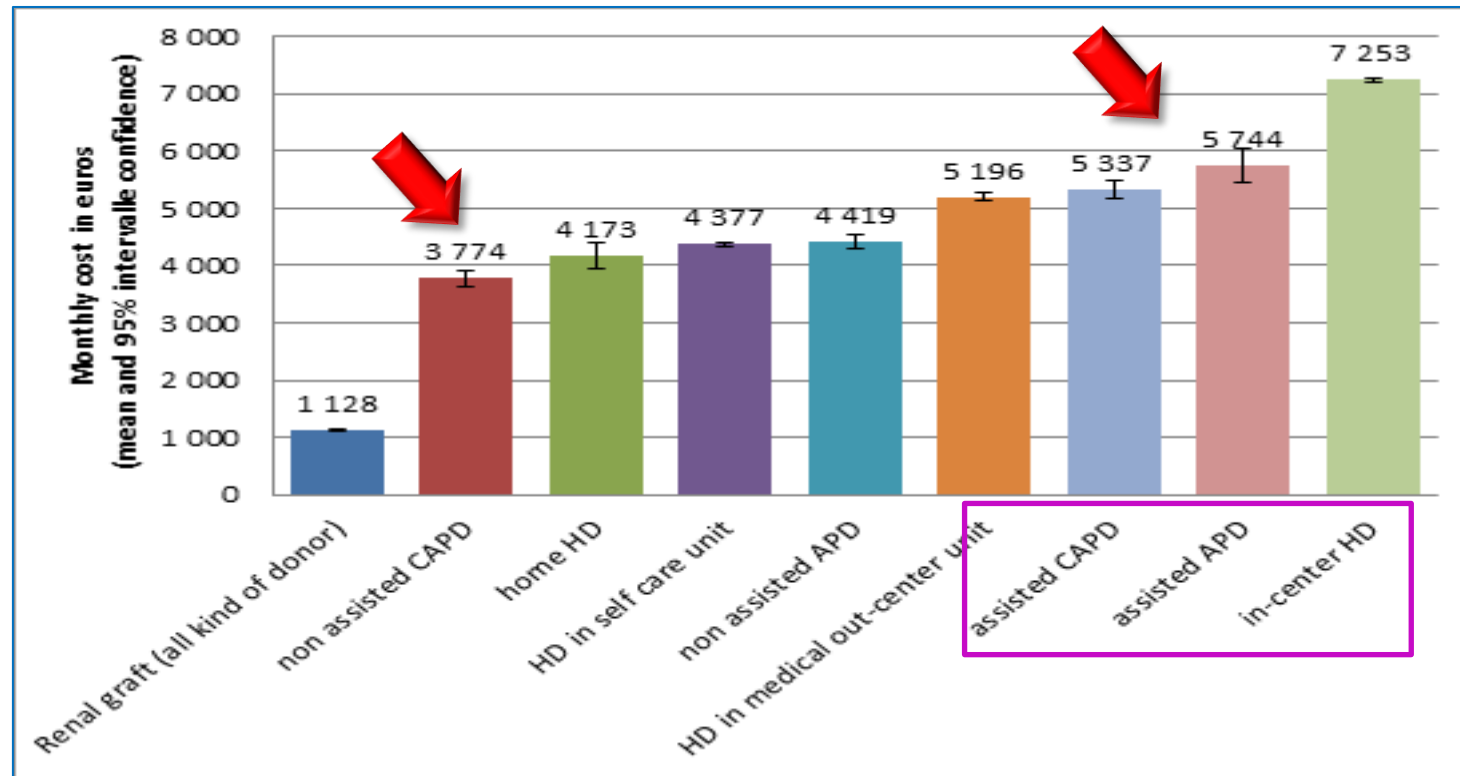
### Quality of Life of Family Caregivers of Elderly Patients on Hemodialysis and Peritoneal Dialysis

Angelica Belasco, PhD, Dulce Barbosa, PhD, Ana R. Bettencourt, PhD, Solange Diccini, PhD,  
and Ricardo Sesso, MD

# French model: the most expensive...



Global cost per months on dialysis [all cost included in €]



[Etude HAS. C Couchoud by Courtesy]

# Factors associated with nurse assistance among peritoneal dialysis patients: a cohort study from the French Language Peritoneal Dialysis Registry

Sonia Guillouët<sup>1,2</sup>, Thierry Lobbedez<sup>1,2,3</sup>, Antoine Lanot<sup>1,3</sup>, Christian Verger<sup>2</sup>, Maxence Ficheux<sup>1</sup> and Clémence Béchade<sup>1</sup>



- 2269 patients
- <65 years of age who started PD between 1 January 2008 and 31 December 2012
- 12% assisted by a nurse
- 127 centers

# Patients characteristics (level 1) and assisted PD utilization

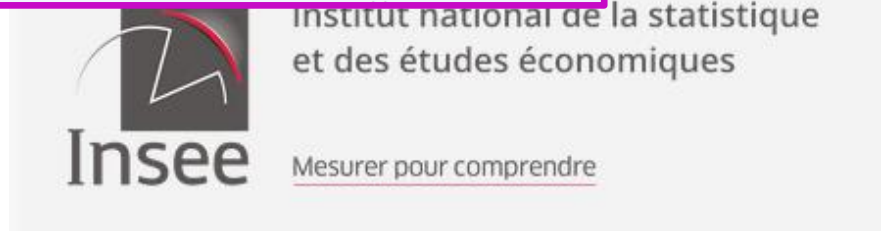
## FUNCTIONAL DISABILITY IN OLDER ADULTS MAINTAINED ON PERITONEAL DIALYSIS THERAPY

Ozkan Ulutas,<sup>1,2</sup> Janine Farragher,<sup>1</sup> Ernest Chiu,<sup>1</sup> Wendy L. Cook,<sup>3</sup> and Sarbjit V. Jassal<sup>1</sup>

Fixed effects	Empty model	Model 1, OR (95% CI)	Model 2, OR (95% CI)
Age by decade			1.79 (1.50–2.12)**
Modified CCI (by categories)			**
2			Ref
3			1.22 (0.75–1.99)
4			2.71 (1.65–4.44)
5			5.04 (3.00–8.48)
6			4.90 (2.53–9.49)
≥7			6.52 (3.56–11.95)
Gender (male)			0.47 (0.35–0.64)**
Underlying nephropathy			
Polycystic kidney disease		Ref	Ref
Unknown		6.54 (2.49–17.20)	6.51 (2.47–17.14)
Interstitial nephritis		10.22 (3.89–26.85)	9.95 (3.79–26.14)
Glomerulonephritis		2.39 (0.94–6.09)	2.31 (0.90–5.89)
Diabetes		4.50 (1.67–12.10)	4.72 (1.75–12.71)
Miscellaneous		4.20 (1.45–12.13)	4.14 (1.43–12.00)
Urologic		7.47 (2.46–22.68)	7.22 (2.38–21.91)
Vascular		9.26 (3.80–22.59)	9.22 (3.77–22.55)
Systemic disease		5.48 (1.87–16.09)	5.60 (1.90–16.47)

=> Early functional impairment in dialysis patients

=> ESRD women are less likely to have a family helper



# Center characteristics (level 2) and assisted PD utilization

Fixed effects	Empty model	Model 1, OR (95% CI)	Model 2, OR (95% CI)
Centre experience (new patients per year)			
≤10	-	-	Ref
>10			0.97 (0.61–1.55)
Type of centre			
Non-profit	-	-	Ref
Community hospital			0.91 (0.49–1.69)
Academic hospital			0.77 (0.40–1.49)
Private hospital			0.51 (0.20–1.26)
Centre organization			
Other	-	-	Ref
Full-time nurses			0.52 (0.25–1.09)
Part-time nurses			0.70 (0.35–1.40)
Inability to walk (% of ESRD patients within the district)	-	-	1.00 (0.94–1.07)
Family caregiver (% of ESRD patients within the district)			1.01 (0.98–1.05)
Private nurse density (per 1000 habitants)			
≤150	-	-	Ref
>150			0.89 (0.58–1.39)

# The center effect in the utilization of assisted PD

Fixed effects	Empty model	Model 1, OR (95% CI)	Model 2, OR (95% CI)
Random effects			
Level 2 variance (SD)	0.451 (0.672)	0.449 (0.670)	0.373 (0.611)
LRT P-value	<0.001	-	-
ANOVA P	-	<0.001	<0.001
ICC	0.12	0.12	0.10
PCV	-	-0.19	0.17

1. Heterogeneity of practices between centres = center effect (12%)
2. Patients characteristics did not explain the heterogeneity
3. But the center effect **was not explained** by the center characteristics

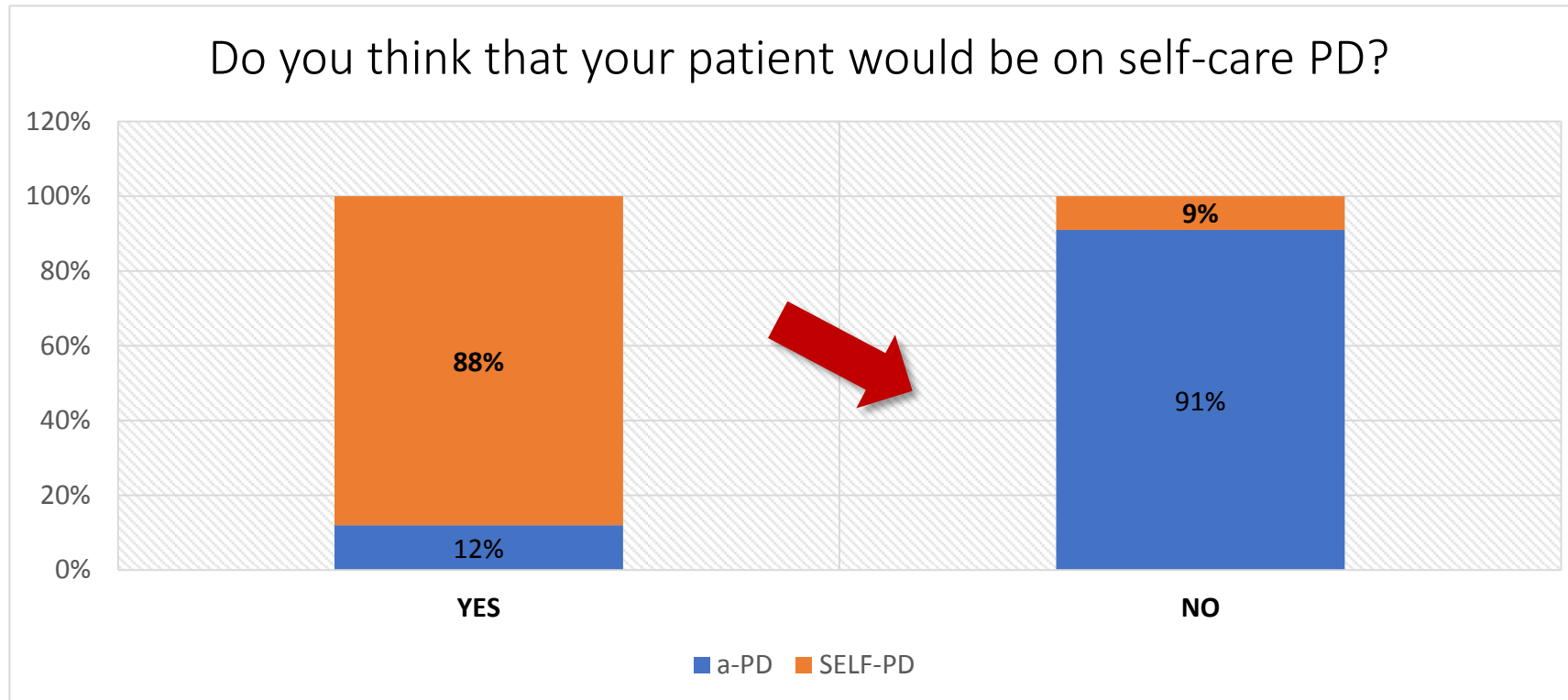
**The nurse practice may explain the center effect**



# The subjective assessment of the patient capability

## Nurse assessment before the education program

[data from the nurse section of the RDPLF, n=1918]

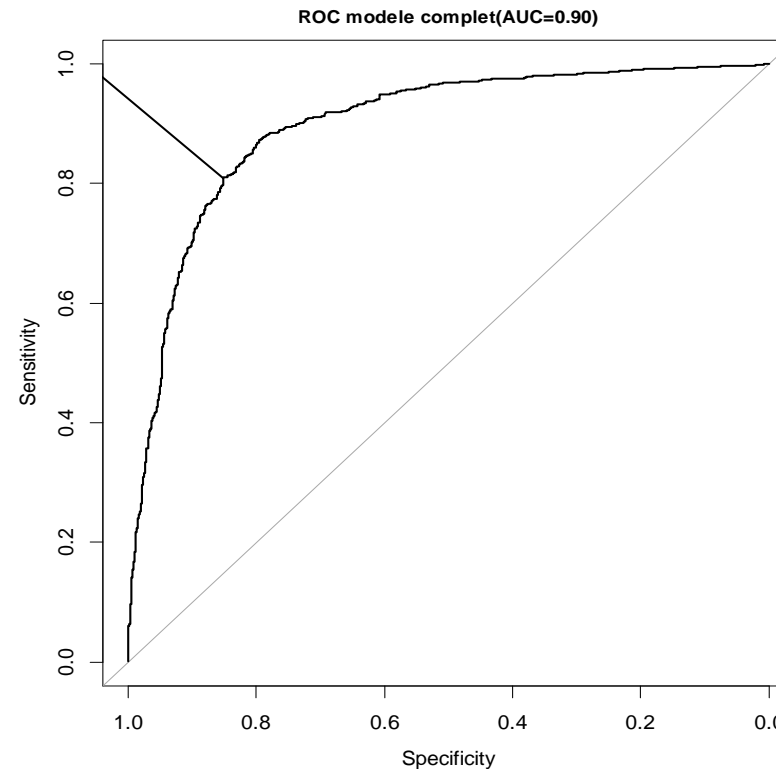


# Factors associated with the a-PD utilization ?

**Factor associated with assisted-PD**  
[log binomial regression]

Variable	RR [95%CI]
<b>Nurse assessment</b>	0.22 [0.18-0.28]
<b>Age (years)</b>	1.06 [1.04-1.08]
<b>Gender (Male)</b>	0.91 [0.85-0.98]
<b>Modified CCI</b>	1.03 [1.01-1.06]
<b>Diabetes</b>	0.97 [0.90-1.04]

**Roc curve of the model**  
[AUC=0.90]



# Nurse assessment in the French model

## Factor associated with nurse assisted-PD [log binomial regression]

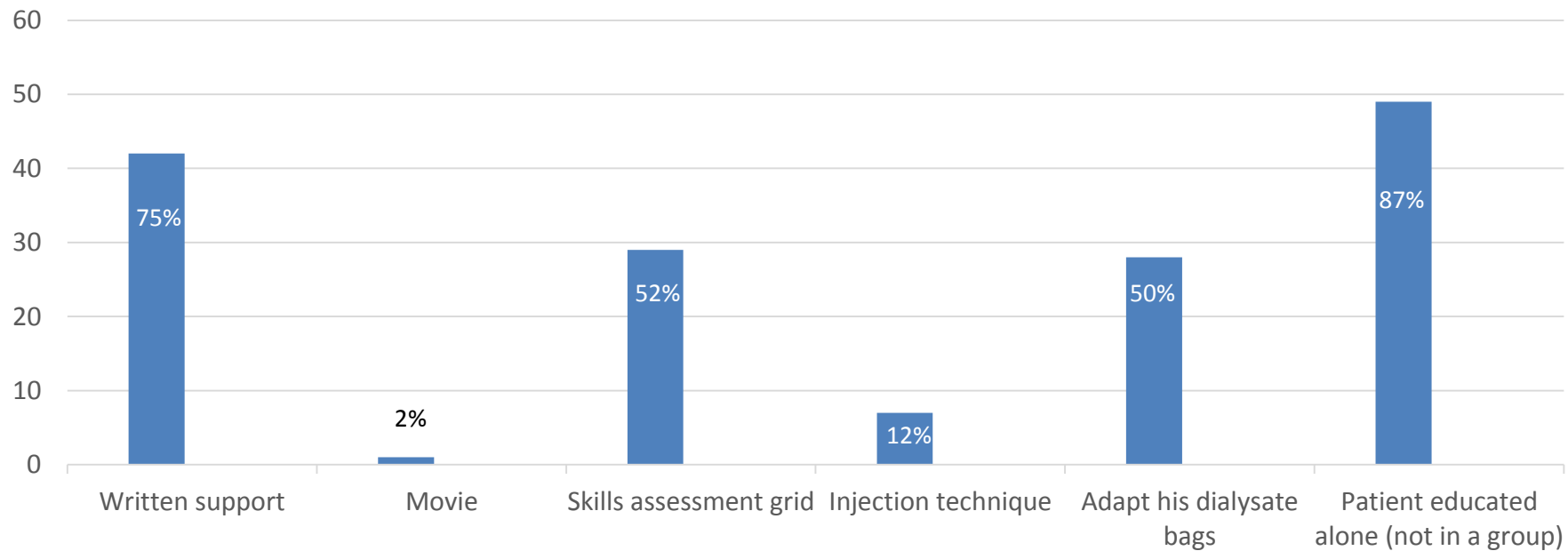
Variable	RR [95%CI]
Functional impairment	1.32 [1.15-1.53]
Cognitive dysfunction	1.46 [1.31-1.52]
Deafness and/or visual impairment	1.13 [1.03-1.22]
Age (years)	1.11 [1.10-1.14]
Gender (Male)	0.77 [0.72-0.84]
Modified CCI	1.09 [1.04-1.14]
Diabetes	1.03 [0.94-1.13]

# How patient education is delivered by PD nurses ?



## Common practices

[data from the nurse section of the RDPLF, n=56 centers]



# Assessment of the patient capability to manipulate

- A Study conducted in our center by Mathilde Beaumier
- Patient will be evaluated with the Purdue Pegboard, Jebsen test, JAMAR, Pinch



## To conclude

- A center effect on the utilization of assisted PD in France
- The center effect is probably explained by nurse practices
- More studies are needed to explore nurse practices

# Thanks

- Nurses of the centers participating in the RDPLF
- Thierry Lobbedez, Clémence Béchade, Antoine Lanot, Valérie Châtelet