self-care dialysis symposium 22 & 23 mai 2014
www.selfcaredialysis-symposium.be

Cliniques universitaires SAINT-LUC UCL BRUXELLES

Implementation and maintenance of a successful Home Hemodialysis programme : a 40-years experience

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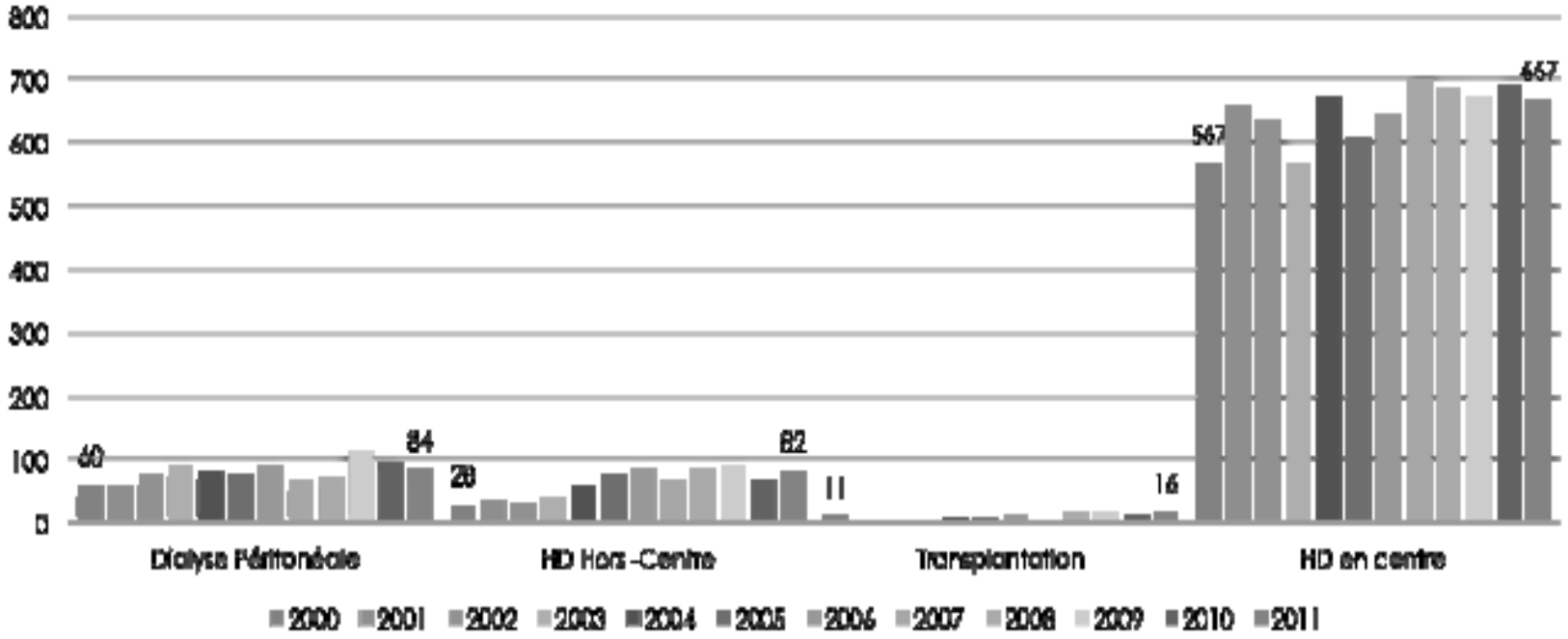
Renal Replacement Therapy modalities in Belgium

Incident patients 2000-2011



Hemodialysis

Schedule : Most commonly, 3 x 4 hrs/week, in-center or « autodialysis »

<u>Procedure</u> : well established, efficient, safe

<u>Disadvantages</u> :

- **Fixed timing**
- **Travels**
- **Nosocomial risks**
- **Costs**

→ **Selfcare dialysis modalities**

Key factors for success of Home HD

Pre-Dialysis Education Programme

Patient training

User’s friendly dialysis machine

Dialysis at home “à la carte”

Patient support & follow-up / Logistics

Avantages early information (PDEP)

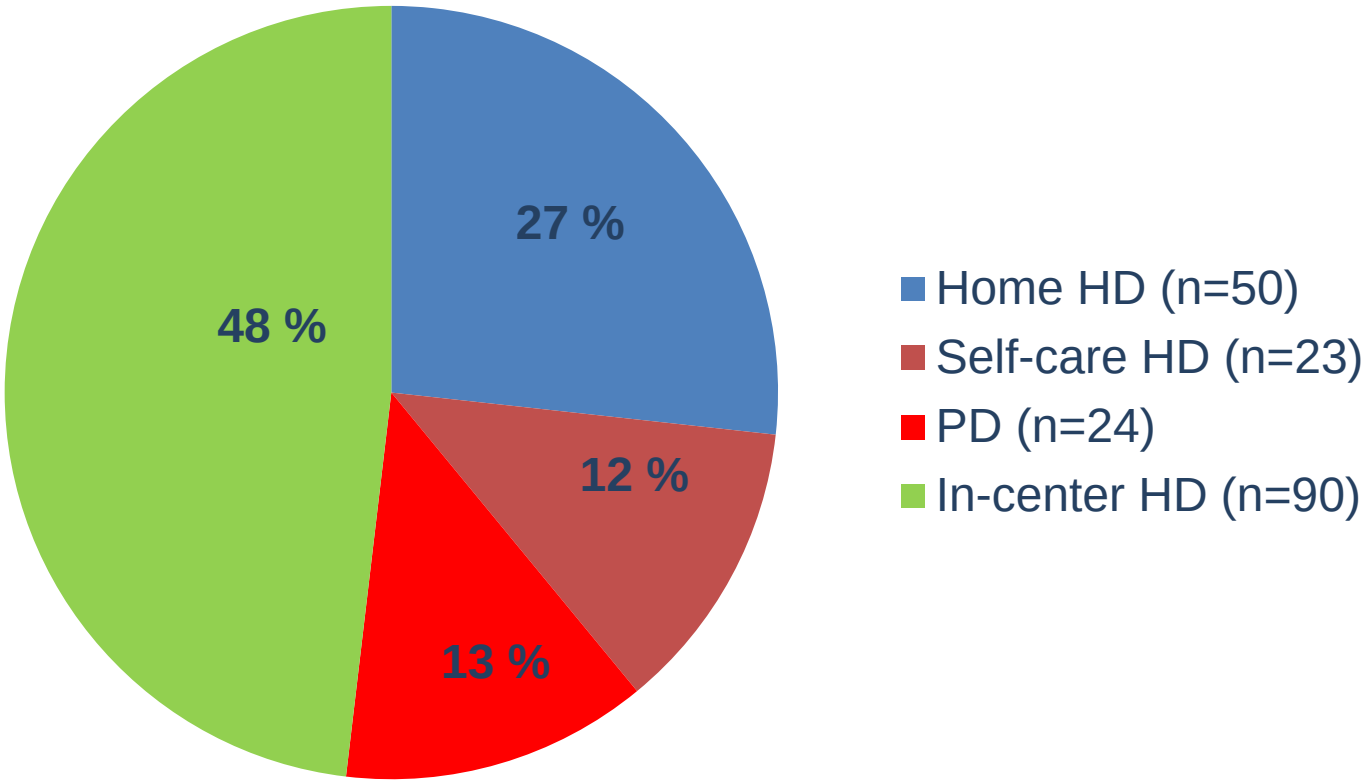
Decrease mystique around dialysis

Provide objective information

Help make treatment choice

Promote self care

Pre Dialysis Education Programme : experience UCL (Avril 2014)



Goovaerts T. et al. Nephrol Dial Transplant 2005

Differences between dialysis modality selection and initiation ?

Table 1. Preferred Versus Actual Dialysis Modality

	Modality Initiated				
Modality Preferred During PDEP	**Self-care In-Center HD**	**Home HD**	**PD**	**Total Self-care**	**In-Center HD**
Self-care in-center HD (n = 12)	7	2	1	10	2
Home HD (n = 24)	0	18	1	19	5
PD (n = 45)	3	0	34	37	8

Note: N = 81.

Abbreviations: HD, hemodialysis; PD, peritoneal dialysis; PDEP, predialysis education program.

Goovaerts et al Am J Kidney Dis 2012 ; 60 : 498-502

Differences between dialysis modality selection and initiation ?

“Booster injections”

- **Families**
- **Epo and iv iron**
- **HD Technician et PD delivery technician**
- **Other patients**

Social worker

Goovaerts et al Am J Kidney Dis 2012 ; 60 : 498-502

GAZET VAN ANTWERPEN Gazet van Mechelen
WEEDE KATERN van 31 oktober

Eerste Belg met een eigen kunstnier thuis

In een [illegible] kamer van een flatwoning te Leuven ligt Marcel Vanparijs. Drie keer per week heeft de dialyse plaats, die acht uur duurt. Naast hem staat de kunstnier. [illegible]

Negen maanden oefenen voor bedienen van apparatuur

(Van onze redakteur)

Voor Marcel Vanparijs (42) uit Leuven heeft het leven zijn aantrekkelijkheid herwonnen. Enkele jaren geleden, toen zijn beide nieren definitief ophielden met funktioneren, zal hij wellicht niet gedacht hebben dat hij nog ooit de kerngezonde, vitale man zou worden die hij nu beslist weer is.

Verleden week vrijdag was voor hem en zijn echtgenote, psychologisch althans, een grote dag. Die dag kwam er een einde aan de langdurige behandeling met de kunstnier in de Leuvense St.-Pietersklinik en kon Marcel Vanparijs naar huis toe met zijn eigen kunstnier. Een medische primeur voor België, niet wat de behandeling betreft, maar wel in verband met het feit dat de kunstnier bij de patiënt in huis staat en door hemzelf of zijn familieleden bediend wordt, zonder dat er direkt nog een dokter bij te pas komt. Marcel Vanparijs en zijn vrouw hebben gedurende negen maanden de vrij ingewikkelde techniek van de kunstnier geleerd en passen die nu omzeggens zelfstandig toe in hun flatwoning aan de Tiensestraat te Leuven.

[illegible]

Kleine kliniek

[illegible]

Kiplekker

[illegible]

Opgetogen

[illegible]

Wanneer U "geblaseerd" bent Blijft U nog het exotisme!

[illegible]

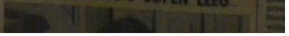
CEYLON

[illegible]

FOTO-SAFARI in KENYA

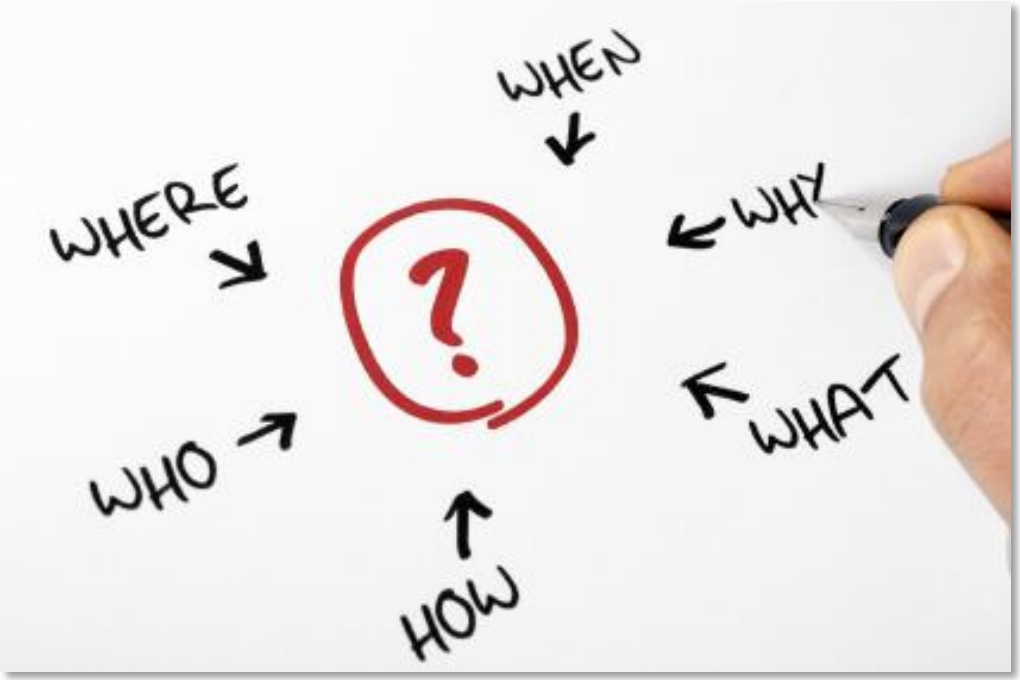
[illegible]

DE FILMSTUDIO'S LOPEN LEEG




GAMBRO
B
Acetato

Patients training



Patients training

Theoretical section

How dialysis works: diffusion, ultrafiltration...

Dry body weight, hyper-, hypovolemia

Diet

Interpretation of blood results

Medications

Interpretation of symptoms …….

Patients training

Practical section

Weight
Blood pressure
Preparation needles/ seringes
Starting up machine
Building up dialyser & bloodlines
Priming

Needling
Setting UF, heparine rate
Log sheet
Rinse back
Dismantling
Hypotension
Puncture problems
Power failure

Patients training

Training model based on behavioural psychology
(5 steps)

Setting expectations, objectives for the learner

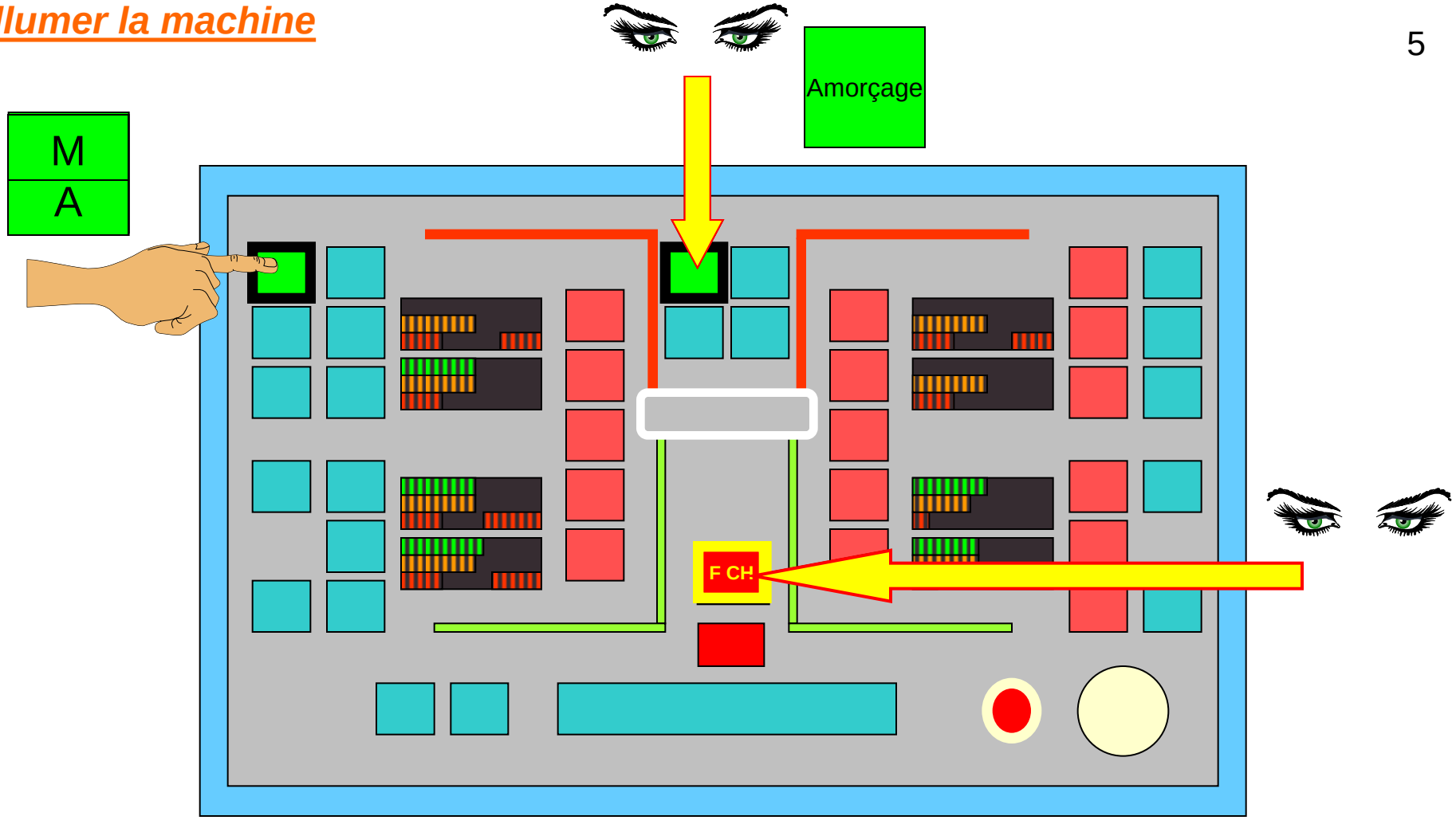
Explaining why skills are being taught

Demonstrating the skills to learner

Practising by the learner with feedback from the teacher

Real situation

Allumer la machine



1. Presser sur la touche "M/A" durant 3 sec. jusqu'à ce qu'elle s'allume.
2. Vérifier si la machine fait ses tests: FC3….FC6, FCH apparaissent.
3. La phase de test est terminée lorsque "AMORCAGE" s'allume.

Le matériel pour le champ

27 ml sérum + 3ml héparine

18 ml sérum + dose charge

20 ml sérum

30ml

20ml

20ml

3ml

Aiguille

Art.

Vein.

Aiguilles

NaCl

NaCl

Sérum physiologique

Héparine

Hibitane

Grand

Petit

Sparadrap

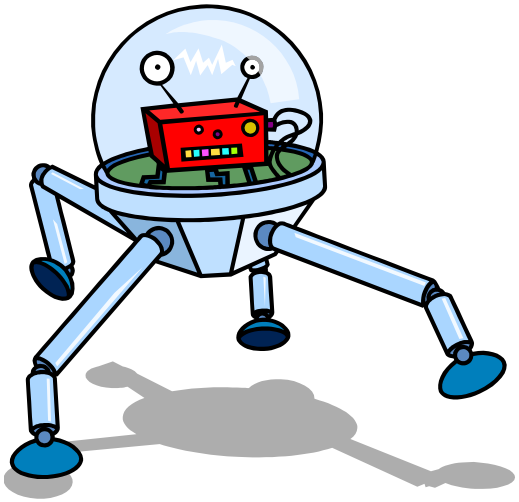
Le set

© Ph.Cougnet: Dialyse Extra-Hospitalière, U.C.L. St Luc, Bruxelles, 2001

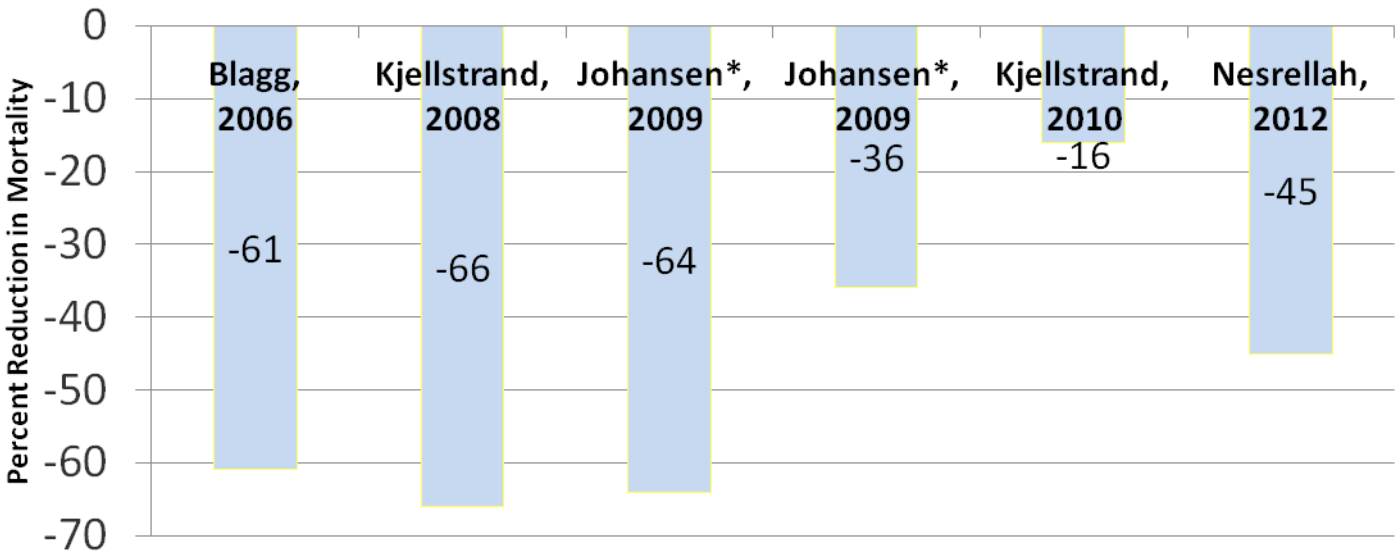
CHAMPIONS
UNIVERSITY
SINCE

Ideal self-care machine

Small
Safe
Silent
Specially designed for self-care
Minimum of manipulations
No partner
Suitable for “individual” treatment

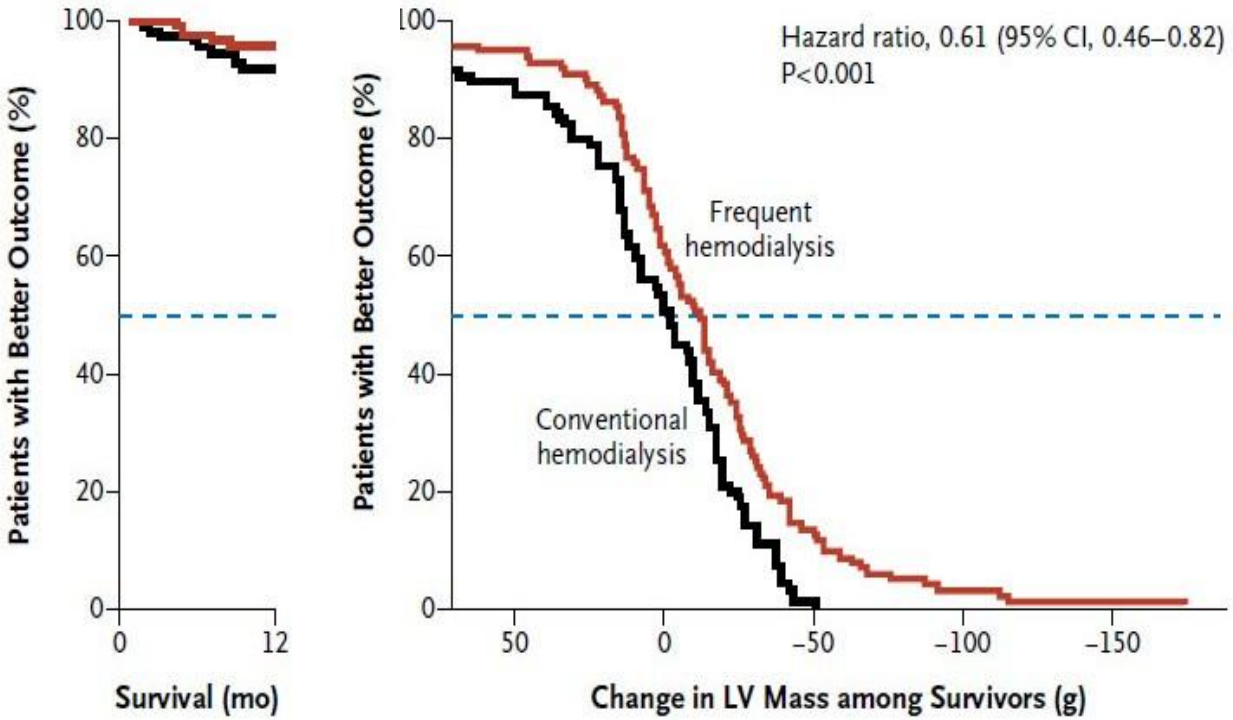


High dose dialysis



Source: JP Benain ; Simon-Kucher & Partners 2013

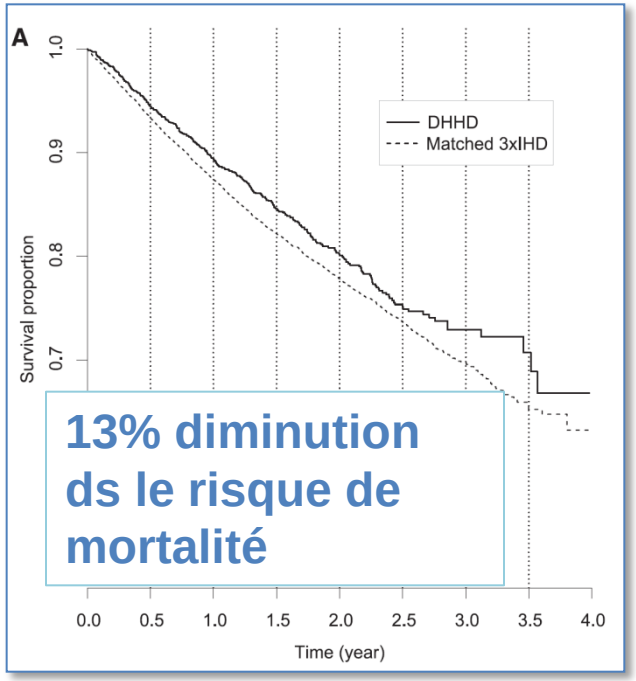
High dose dialysis



Chertow et al., NEJM 2010; 363: 2287-2300

Survival in daily home HD and matched thrice-weekly in-center HD patients

*1873 patients **home HD quotidienne** (NextStageOne) appariés avec 9365 patients **HD en-centre** (1:5 ratio) sélectionnés ds la population du USRDS*

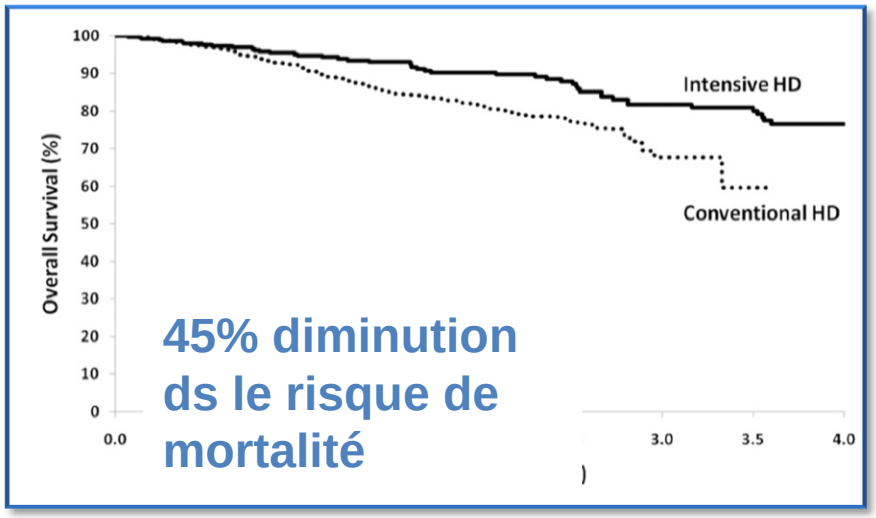


Weinhandl et al J Am Soc Nephrol 2012

Intensive HD associates with improved survival compared with conventional HD

*338 patients en **home HD intensive (> 5.5 heures, 3-7 fois/sem)** du IQDR (Fr, US, Ca, 2000-2010)*

1388 pts témoins en HD conventionnelle en-centre provenant de DOPPS matchés



Nesrallah et al J Am Soc Nephrol 2012

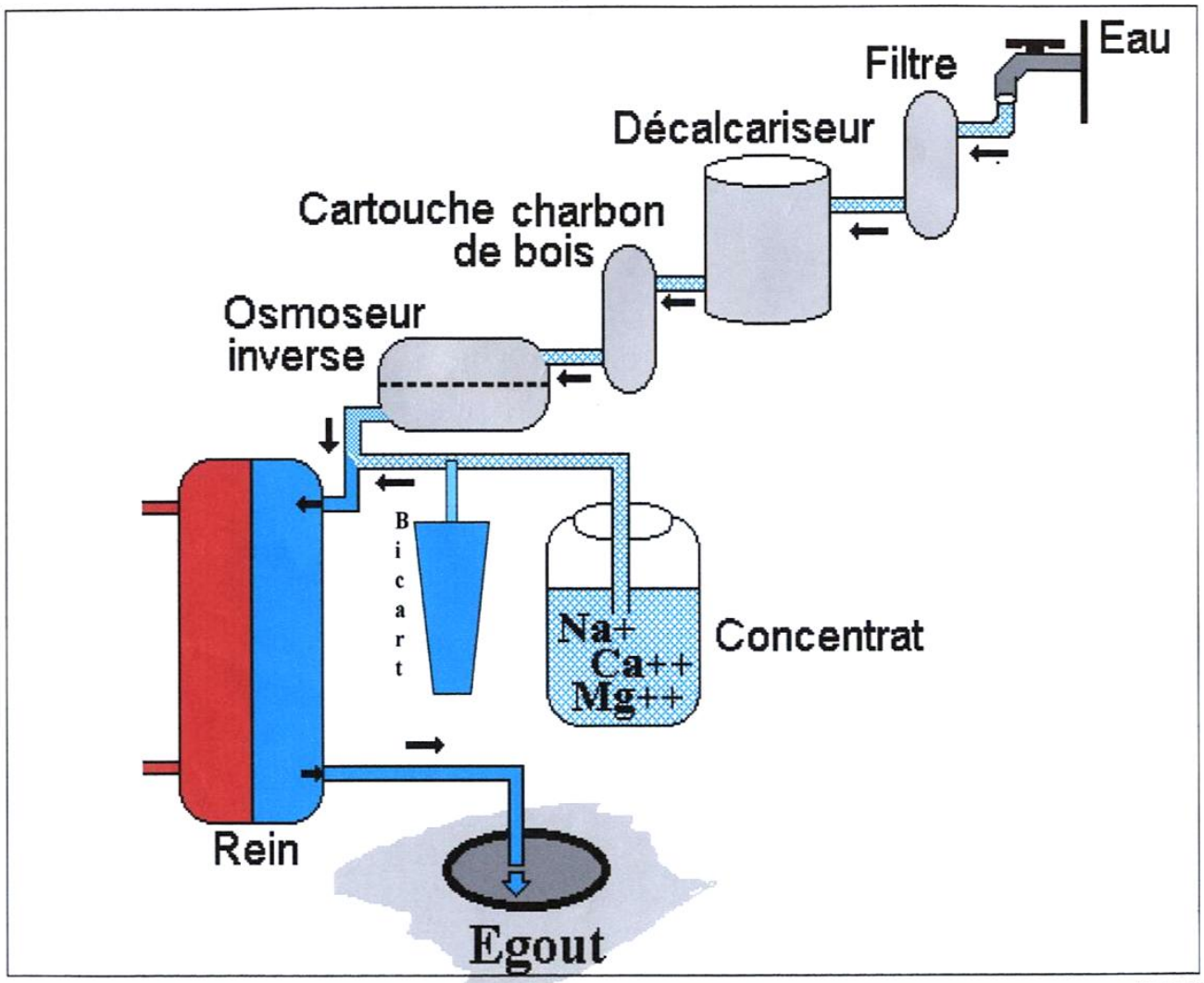
Par courtoisie J Morelle

Patient support & follow-up / Logistics

- Back-up dialysis
- On call service
- Outpatient clinic
- Home visits
- Correspondance

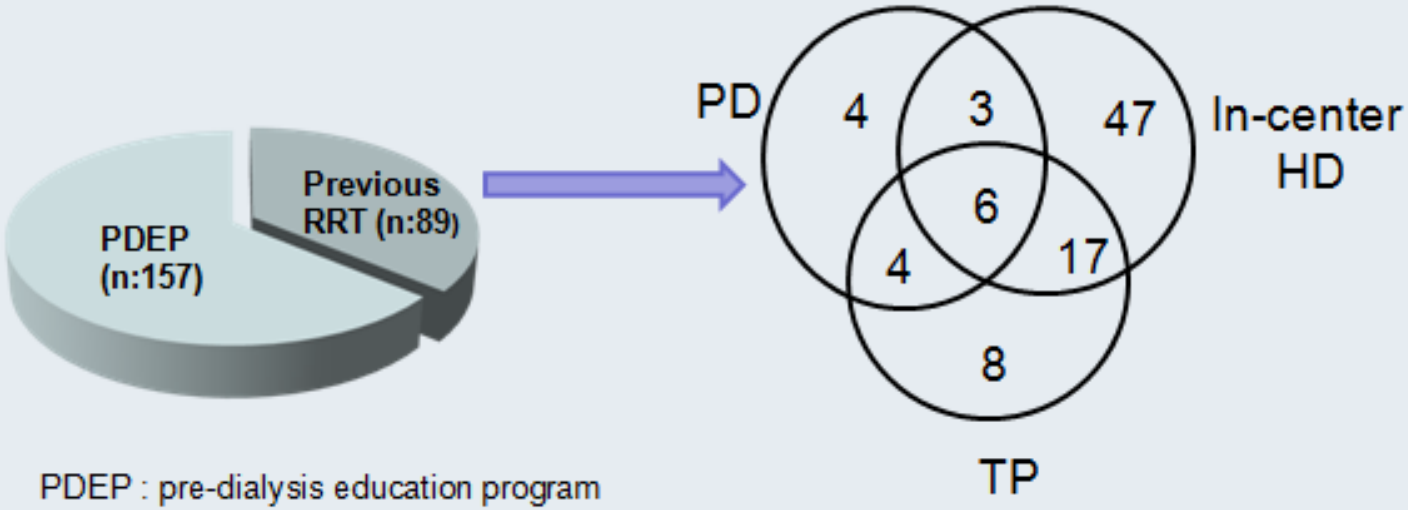
- Deliveries
- Waste
- Technical service
  - Assessment of environment
  - Plumbing & electrical wiring
  - Equipment maintenance & repair
  - Sampling
  - Replacing filters

Patient support & follow-up / Logistics



Patient support & follow-up / Logistics

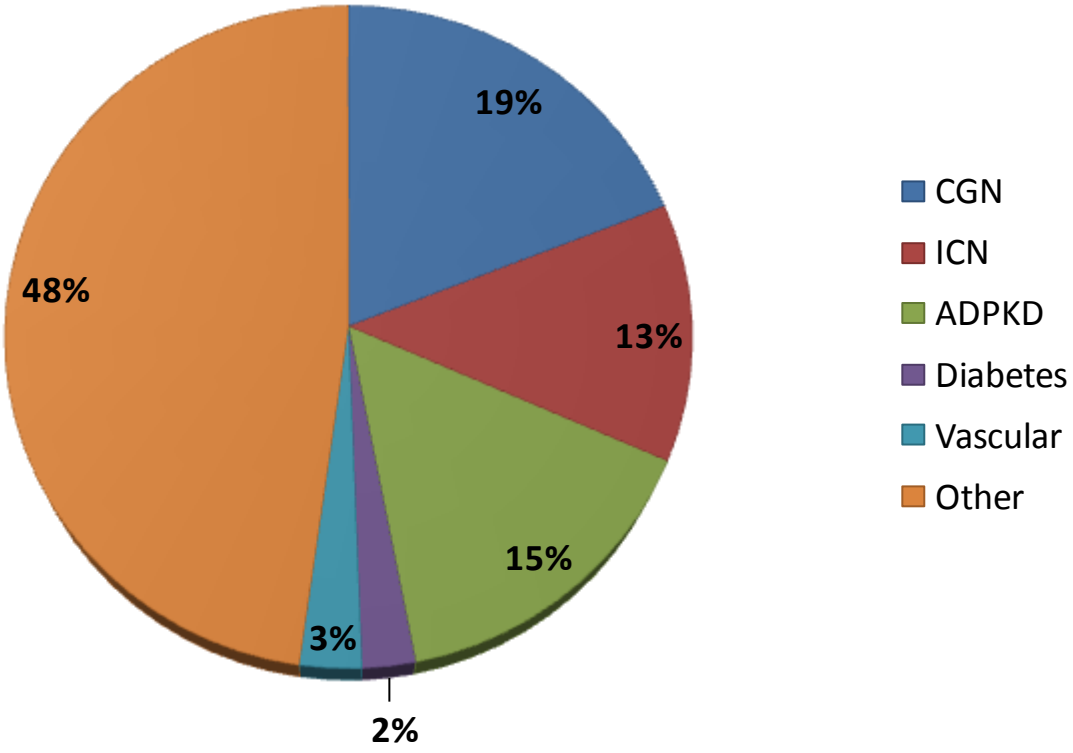
Where do the patients come from ?



PDEP : pre-dialysis education program

40 years Home HD experience

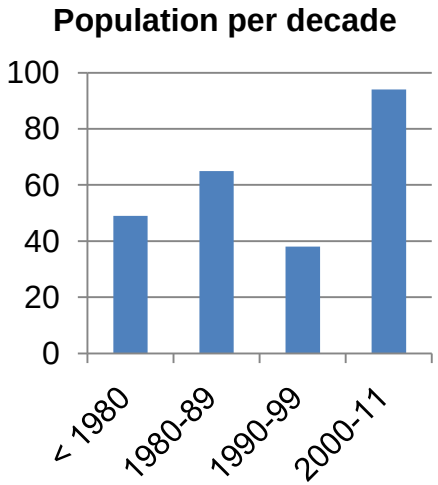
Nephropathy

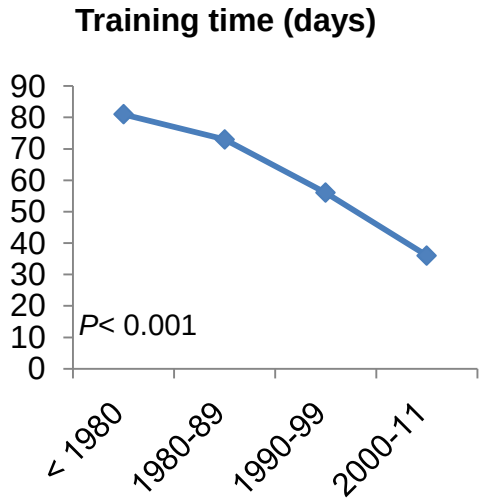


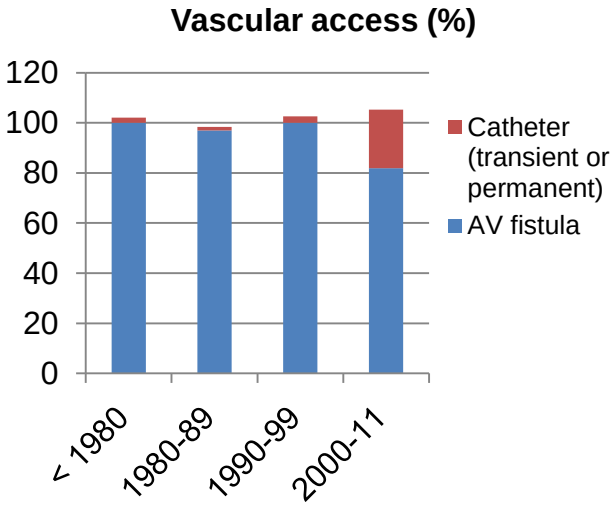
40 years Home HD experience

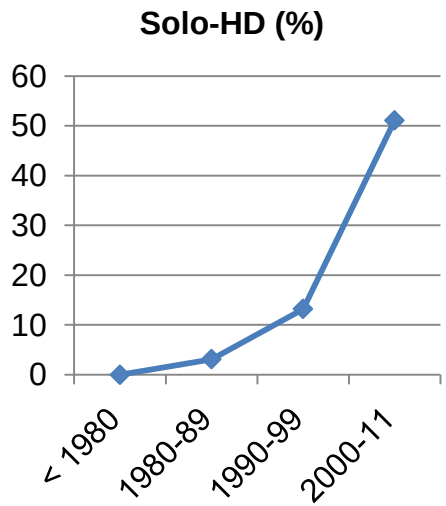
	< 1980	1980-89	1990-99	2000-11	Overall	P
N (patients)	(49)	(65)	(38)	(94)	(246)	
Age at first HHD	46 (19-67)	44 (21-69)	42 (16-71)	42 (15-79)	43 (15-79)	NS
Charlson comorbidity*	2 (2-8)	2 (2-7)	2 (2-7)	2 (2-10)	2 (2-10)	NS
Residency (%)						<0.001
Apartment	6.4	6.2	10.5	26.6	14.8	
House	93.6	93.8	89.5	73.4	85.2	
Location for HHD (%)						<0.001
Dedicated room	32.6	21.5	15.8	12.8	19.5	
Bedroom	38.8	7.7	10.5	35.1	24.8	
Living room	24.5	67.7	68.3	48.9	52.0	
Other	4.1	3.1	5.3	3.2	3.7	

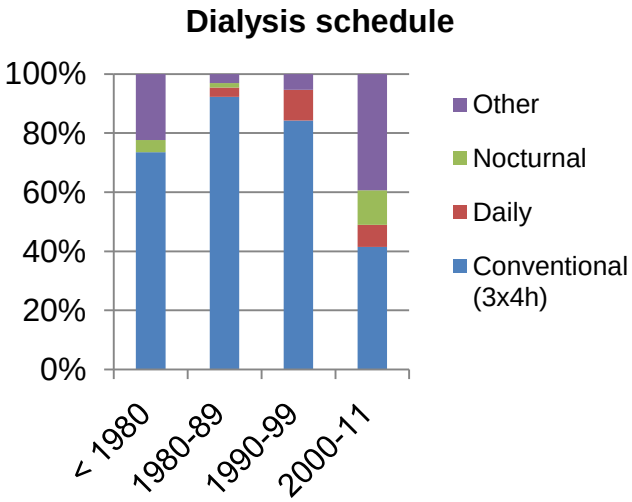
40 years Home HD experience











40 years Home HD experience

AVF represent 92.2% overall but only 81.9% during the last period

AVF cannulation was mainly performed by family member until 1990, but self cannulation concerned 51.1% of patients after 2000!

82% of AVF did not require intervention

After 1997, the use of the buttonhole technique became systematic. Infection, stenosis and pseudo-aneurysms rates remained unchanged despite more frequent dialysis (0.34, 0.01, and 0.03 case/100patients/months)

Conclusions

The influence of a Pre-Dialysis Education Programme is crucial

By giving choice to patients and supporting their decision making, most will initiate RRT according to their initial preferences and opt for an alternative self-care modality

Offering all modalities and leaving the choice to the patients lead automatically to an optimal distribution

All treatment modalities are complimentary and NOT in competition

The development of a Home HD programme should rely on dedicated teams involved in training, education and technical and logistic supports

40 years Home HD experience

40 years Home HD experience

40 years Home HD experience

Remerciements

Mr T Goovaerts et Ph Cougnet

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Questions ?