

End-Stage Renal Disease Among Aboriginal Peoples in Canada: Treatment and Outcomes

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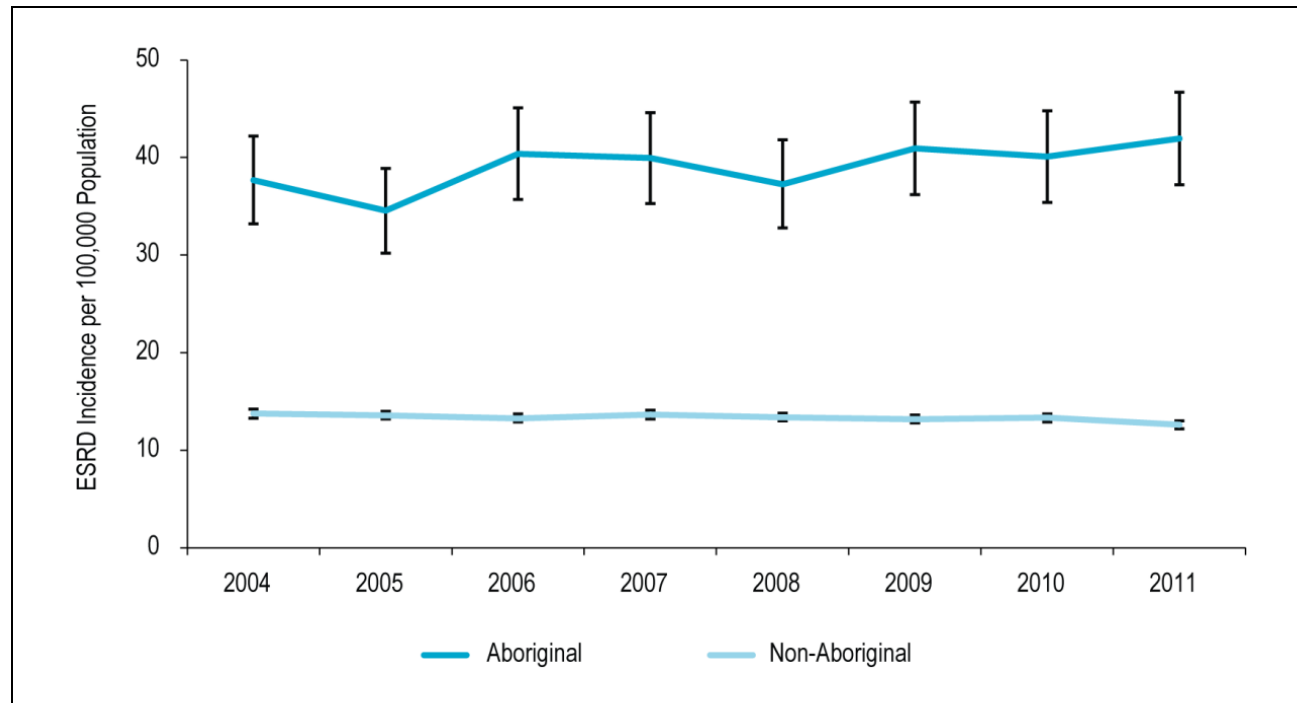


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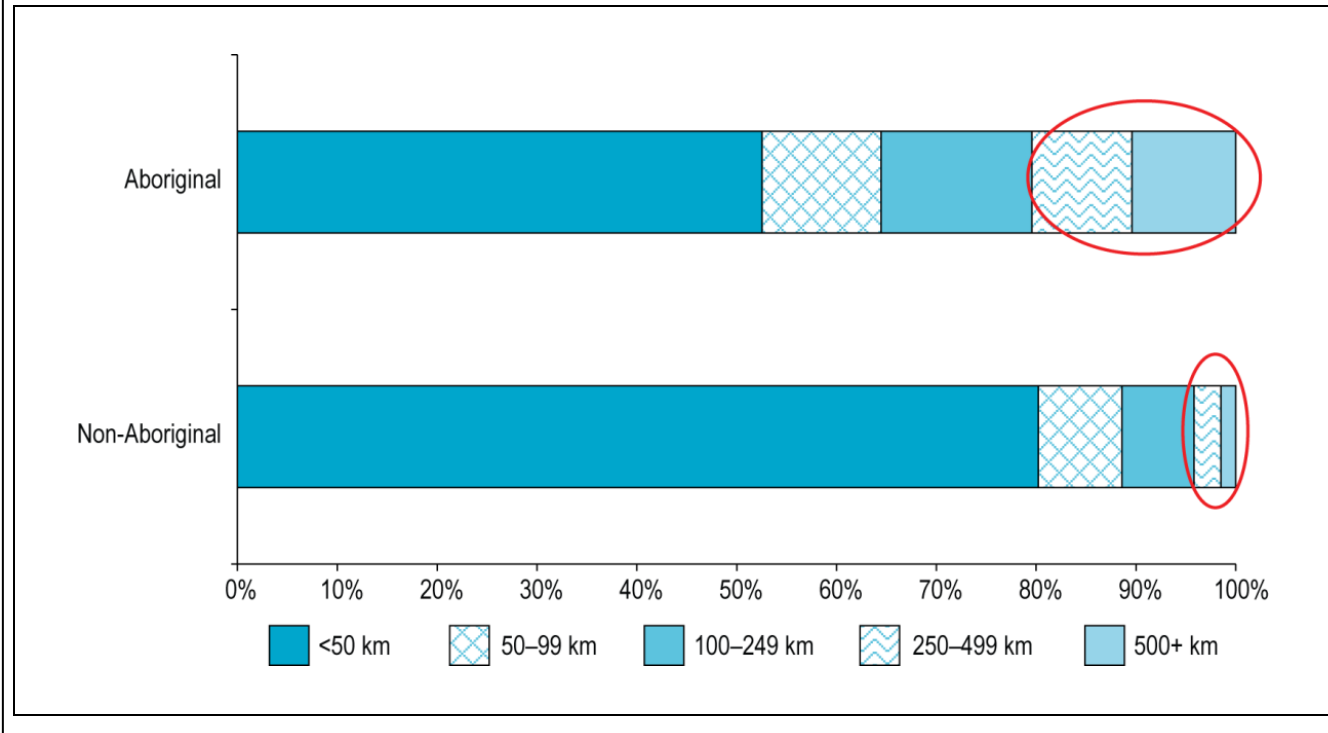
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Figure 1: Incident Cases of ESRD Among Adults Age 20 and Older, Canada, 2004 to 2011



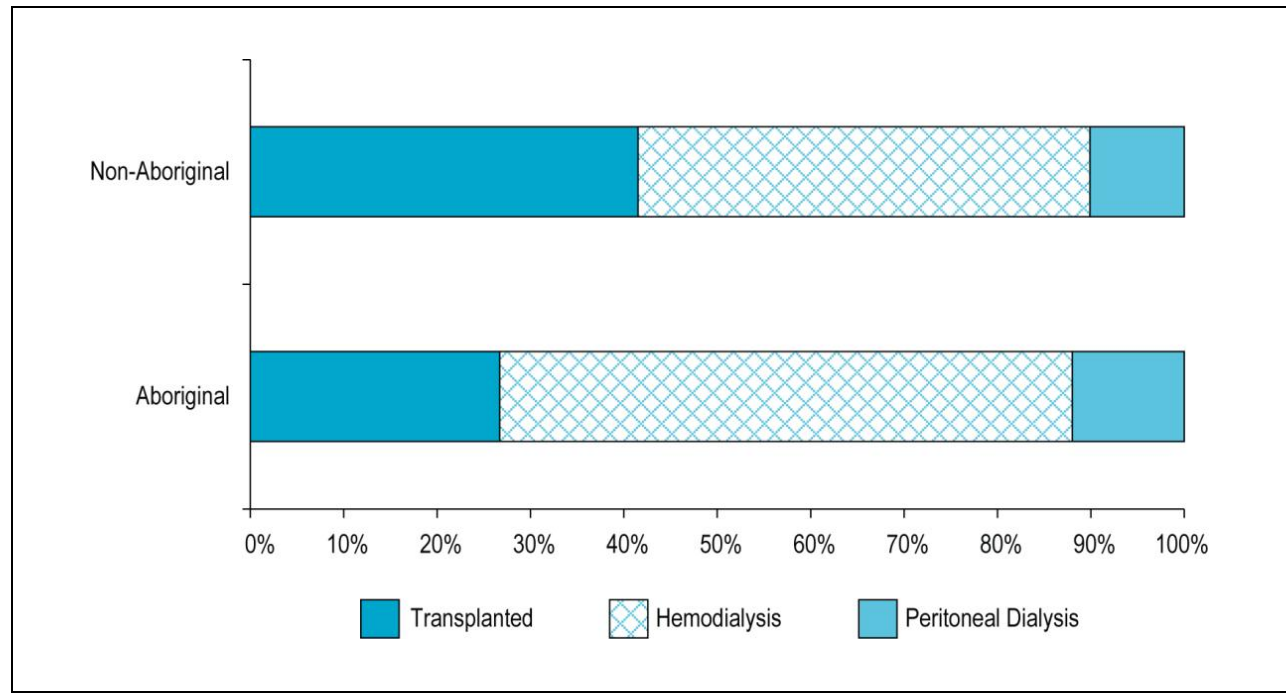
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Figure 3: Distances Travelled to Receive Treatment for ESRD (Prevalent Cases), Adults Age 20 and Older, 2011



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Figure 4: Treatment Therapies for ESRD Patients (Prevalent Cases), Adults Age 20 and Older, 2011

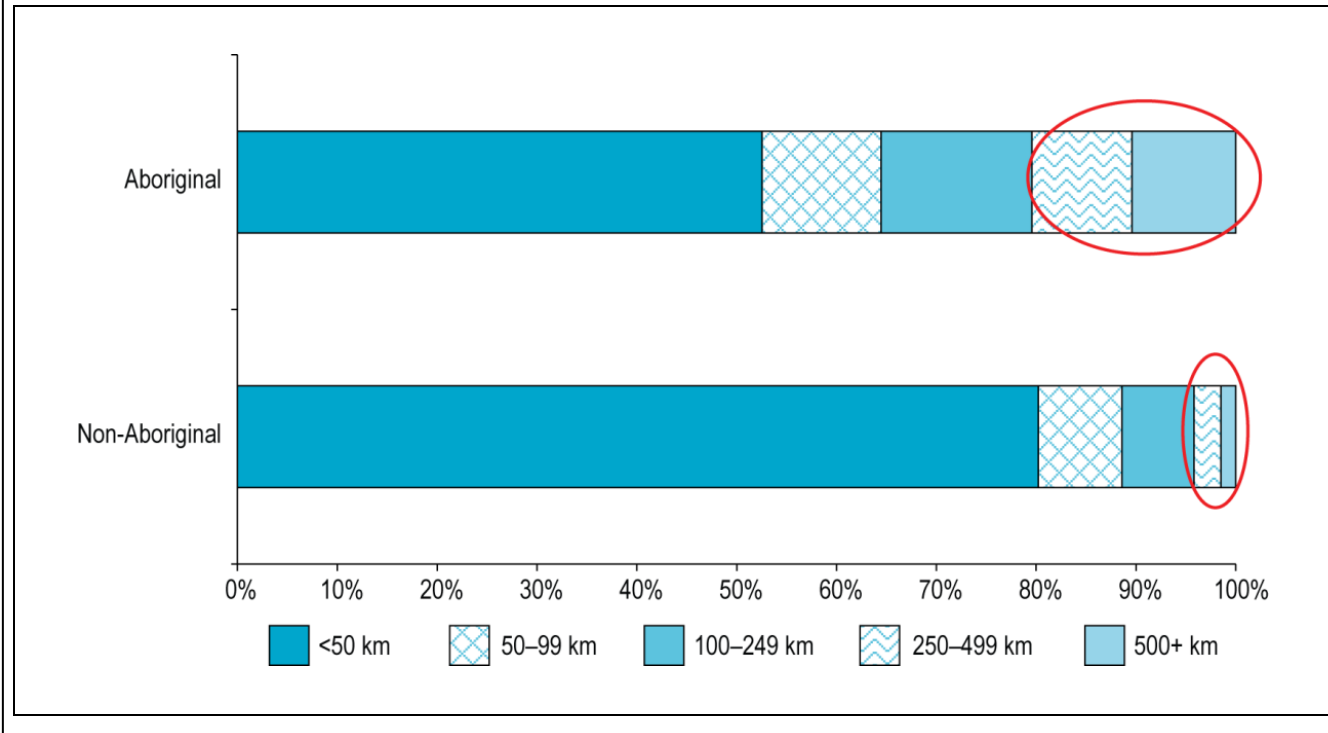




What makes home HD a good choice for indigenous patients?

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Figure 3: Distances Travelled to Receive Treatment for ESRD (Prevalent Cases), Adults Age 20 and Older, 2011



	Peritoneal Dialysis	Home Hemodialysis	Facility-based hemodialysis
Flexibility of treatment time	Yes	Yes	no
Puts you in charge	Yes	Yes	No
Portable to help with travel	Yes	Depends on system	No
Ability to 'cheat' on diet / fluids	Yes	Yes	No
Travel for dialysis	No	No	Yes
Getting more dialysis (=feeling better)	Sometimes	Yes	No
Needle-free treatment	Yes	No	No

	Peritoneal Dialysis	Home Hemodialysis	Facility-based hemodialysis
Support network to help you at home (nurses, dietitians, social workers, nephrologist)	Yes	Yes	Yes
Home renovations needed?	No	Usually yes	No
Costs of renovations covered by kidney program	n/a	Yes	n/a
Training needed	Yes (1-2 weeks)	Yes (~6 weeks)	No
Need for clinic visits (*may be via telehealth)	Yes (every 1 – 3 months)	Yes (every 1 -3 months)	No

BC Provincial Renal Agency Guidelines for Renal Programs



E. GUIDELINES FOR COMMUNITY HEMODIALYSIS UNITS

Creation of a CDU requires a careful collaborative planning process and should adhere to the following principles:

- A. Travel distance is within 1.5 hours of a patients' residence.
- B. Sufficient patient volumes (6-8 patients) to sustain staff competence, staffing levels and quality of patient care.
- C. Patients selected are suitable candidates: They are medically stable yet unable for medical or social reasons to receive home-based care.
- D. Space must be able to efficiently accommodate supplies, infection control practices, occupational health practices, water supply, power supply, patients in wheelchairs and patients in chairs.
- E. Ability to recruit and retain health care providers including hemodialysis-trained nurses. Availability of nephrologists.
- F. Predictable transportation patterns. There is a need to consider geography/climate and feasibility of patients traveling to existing HD centres.
- G. Local physician willing to attend to patient when required.





What is the home HD
clinic's role in patient support?

Elements / Expectations of Home HD Program: Patient responsibilities

- Expectation of patient on home program is of self-management. By end of training, patient (or caregiver) will be confirmed to be competent in:
 - Self-cannulation of vascular access;
 - Set-up and tear down of hemodialysis system;
 - Capable of handling all alarm situations during treatment;
 - Basic maintenance and repairs on equipment;
 - Ordering necessary consumable supplies.

Elements / Expectations of Home HD Program: Regional Home HD program

- Regional Home HHD program will be involved in:
 - Periodic ‘planned’ clinic visits (F-2-F or telehealth)
 - “Unplanned” assistance for machine issues
 - Technical support (via vendor) for machine issues – 2 machine model for remote locations



First Nations Health Authority
Health through wellness

What role can the
local health team have?
What about the
local home care team?

Elements / Expectations of Home HD Program: Local community

- No expectation on the local community to be involved in any aspect of dialysis care.
 - Emergency care on occasion – have worked with BC Ambulance where applicable; can work with community care-givers if needed for Bella Bella.
- Local community acts as ‘eyes and ears’ for any concerns with local residents

Elements / Expectations of Home HD Program: Local community

- In event of acute medical need, local care team would assess and stabilize patient and if needed, contact Vancouver program to facilitate transfer of patient to Vancouver for ongoing care
 - Vancouver program is available 24/7 for telephone support to assist with stabilization.
 - Dialysis patients can be temporarily stabilized without dialysis for several days if necessary

Elements / Expectations of Home HD Program: Local community

**Emergency Preparedness Information
For
Dialysis Patients presenting to
Healthcare Facilities in Remote Communities
in British Columbia and the Yukon Territory**



What are some of the challenges
faced by home HD patients?
(particularly in remote communities...)

Patient-perceived barriers to the adoption of nocturnal home hemodialysis

Domain	CHD	Home HD
Self-cannulation <i>("I will be comfortable inserting the needles by myself")</i>	2.11* (± 1.55)	3.57 (± 1.29)
Quality of care <i>("I will receive as good care as I would in the hospital.")</i>	2.34* (± 1.48)	4.10 (± 1.29)
Self-efficacy <i>("I will be able to perform the treatment properly.")</i>	2.57* (± 1.52)	4.37 (± 1.19)
Fear of a catastrophic event <i>("I worry that something will go wrong during my treatment.")</i>	3.72* (± 1.54)	2.94 (± 1.47)

* p < 0.05

Chan et al, Clin J Am Soc Nephrol 2009 Apr 4(4): 784-789

Isolation





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Health through wellness

What are some of the ways
that the HHD clinic is prepared
to support patients to overcome these
challenges?

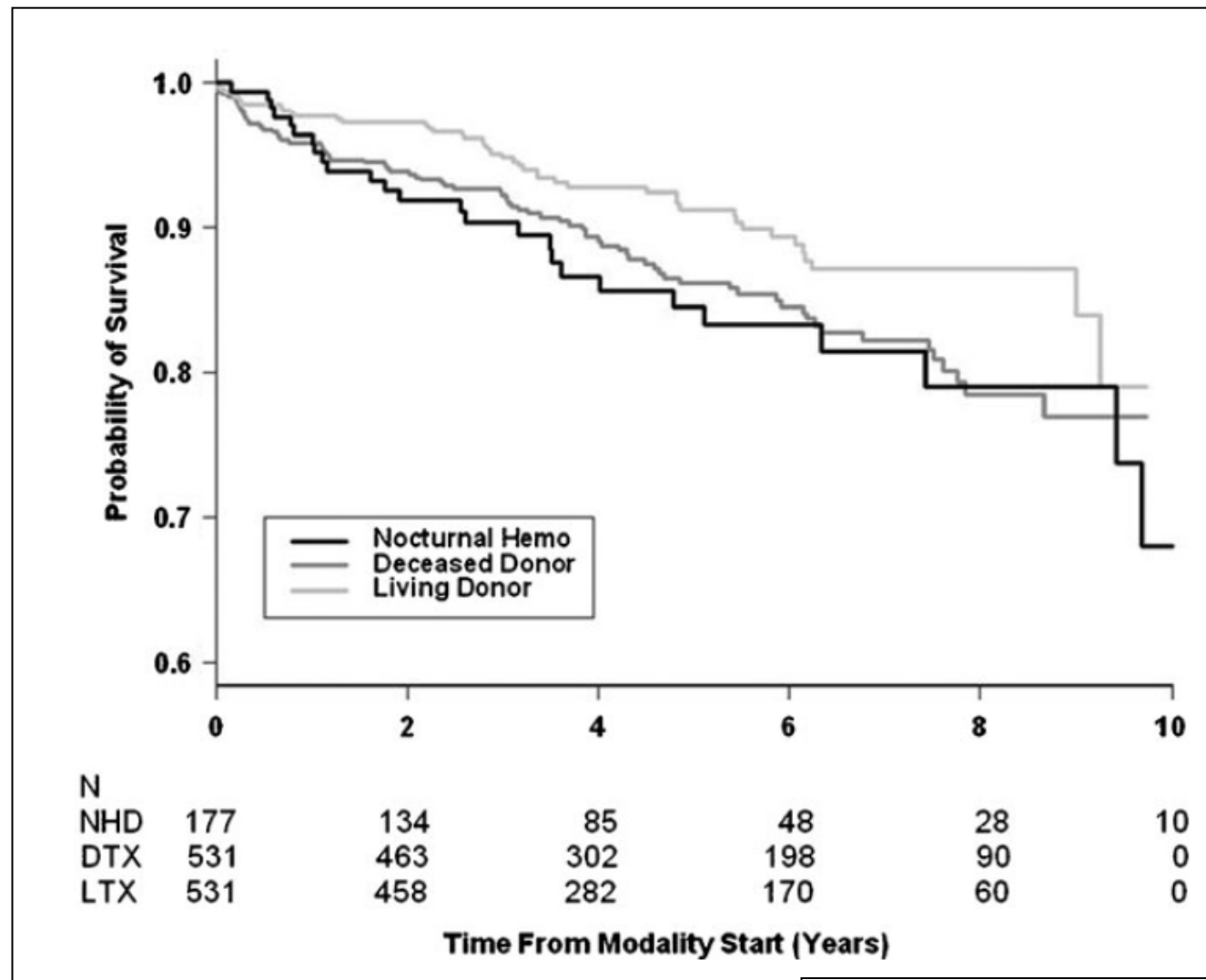


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What outcomes do you see (improved)
for Home HD patients?

Outcomes

Time to death in patients treated with NHD, Deceased and living donor kidney transplantation



Pauly et al, NDT, 2009

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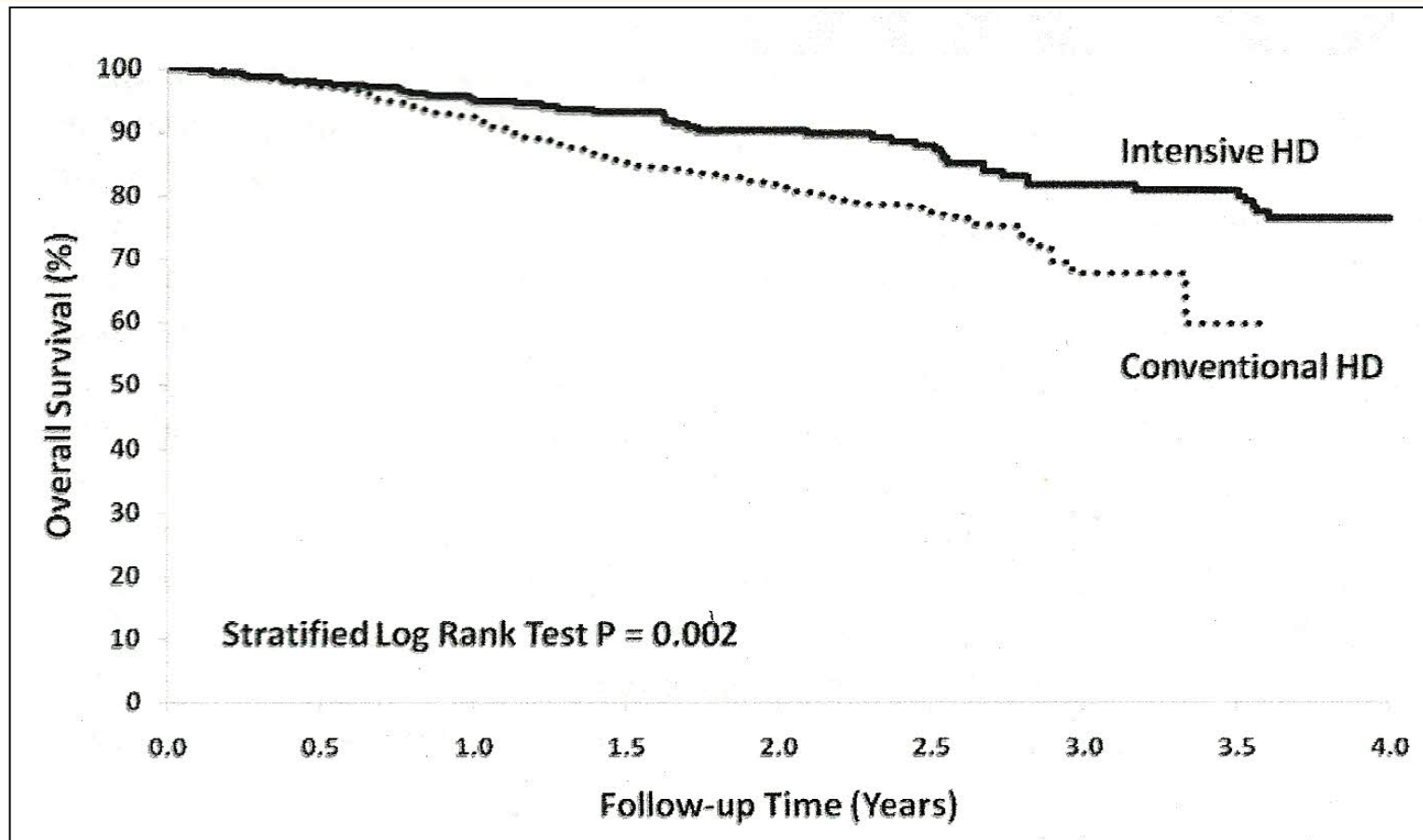
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Intensive Hemodialysis Associates with Improved Survival Compared with Conventional Hemodialysis

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FREEDOM -12 Month Interim Results

Interim Measure	Baseline	Month 12	P - Value
Beck Depression Inventory Score ¹	11.2	7.8	P < 0.001
Post Dialysis Recovery Time (min) ¹	476	63	P < 0.001
% of Patients Reporting Symptoms of Restless Legs Syndrome ²	36%	26%	P = 0.0495
# of Prescribed Anti-Hypertensive Medications ³	1.7	1.0	P < 0.0001
% of Patients NOT Prescribed Anti-Hypertensive Medication ³	21%	47%	P < 0.002
MOS Sleep Scale - Sleep Problems Index I ²	39	33	P = 0.001
MOS Sleep Scale - Sleep Problems Index II ²	41	34	P < 0.001
SF36 - Physical component scale (PCS) ⁴	34	38	P < 0.0001
SF36 - Mental component scale (MCS) ⁴	50	52	P = 0.01

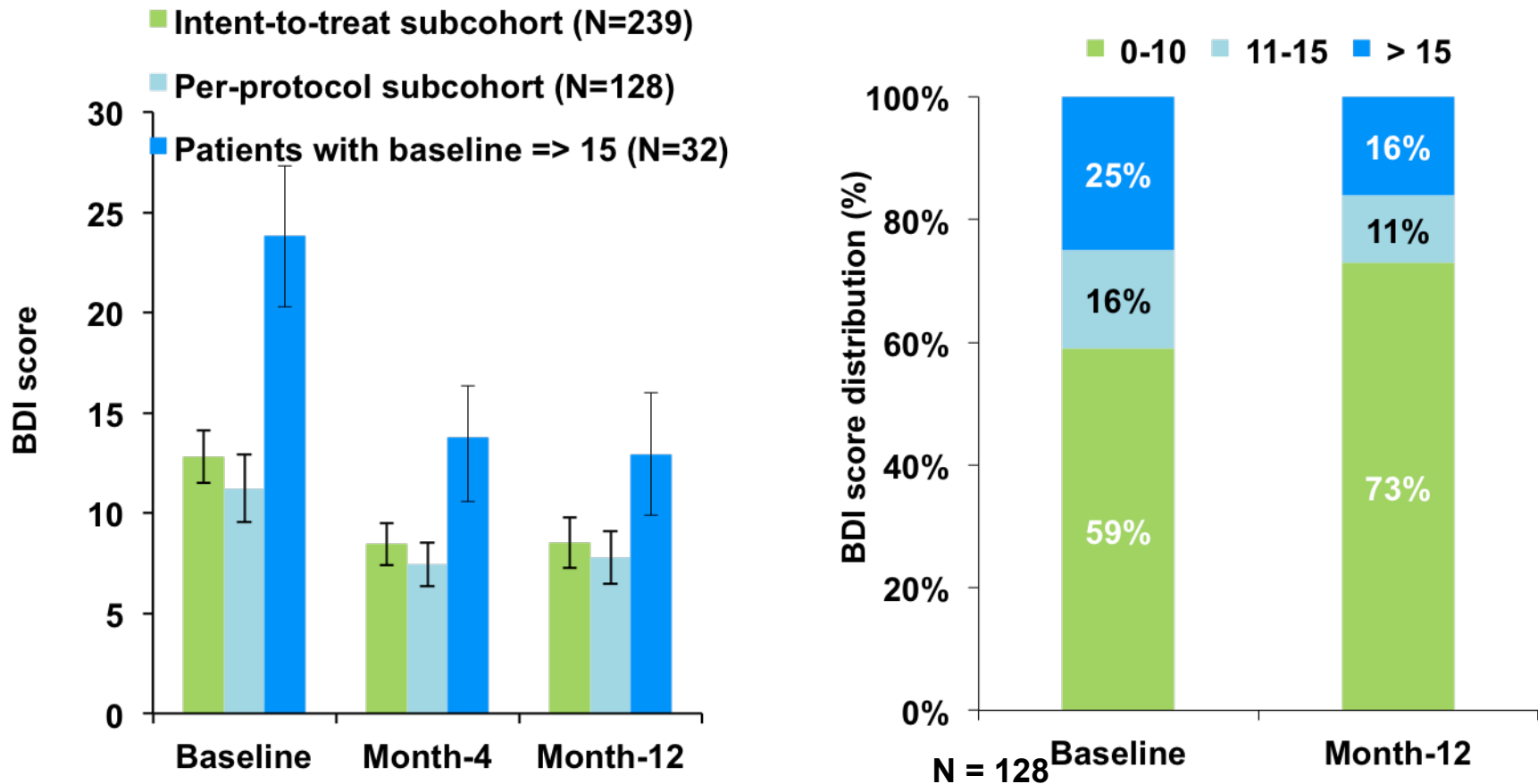
¹Jaber B, et al. Improvements in Depressive Symptoms and Post-Dialysis Recovery Time. Am J Kidney Dis 56:531-539, 2010.

²Jaber B, et al. Improvements in Restless Legs Symptoms and Sleep Disturbances. Clin J Am Soc Nephrol 6: 1049-1056, 2011.

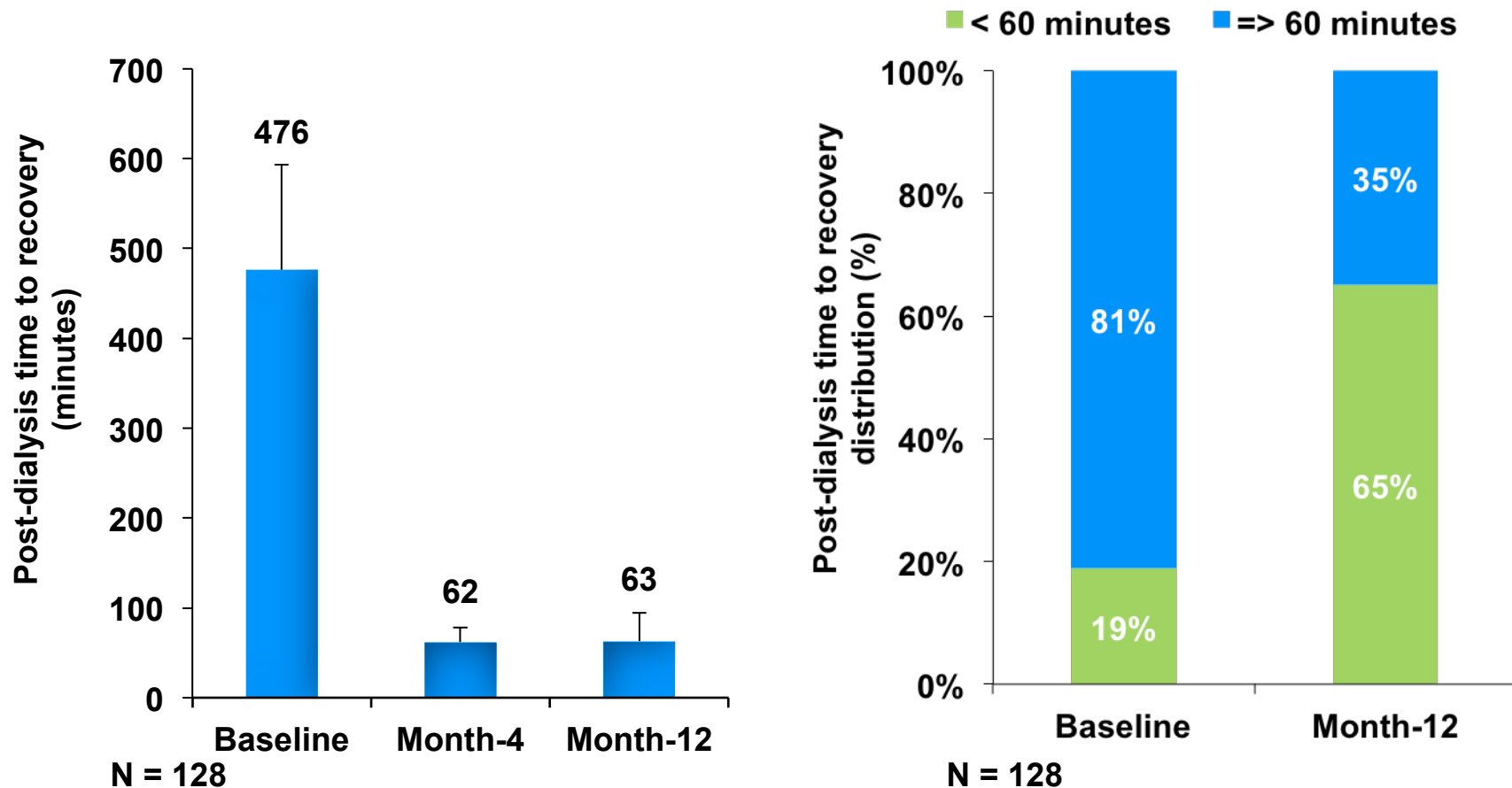
³Jaber B, et al. Poster presentation. SDHD Reduces The Need for Anti-Hypertensive Medications ASN Renal Week 2009.

⁴Finkelstein F, et al. SDHD Improves SF-36 Health Survey Domains. Poster presentation ADC 2011

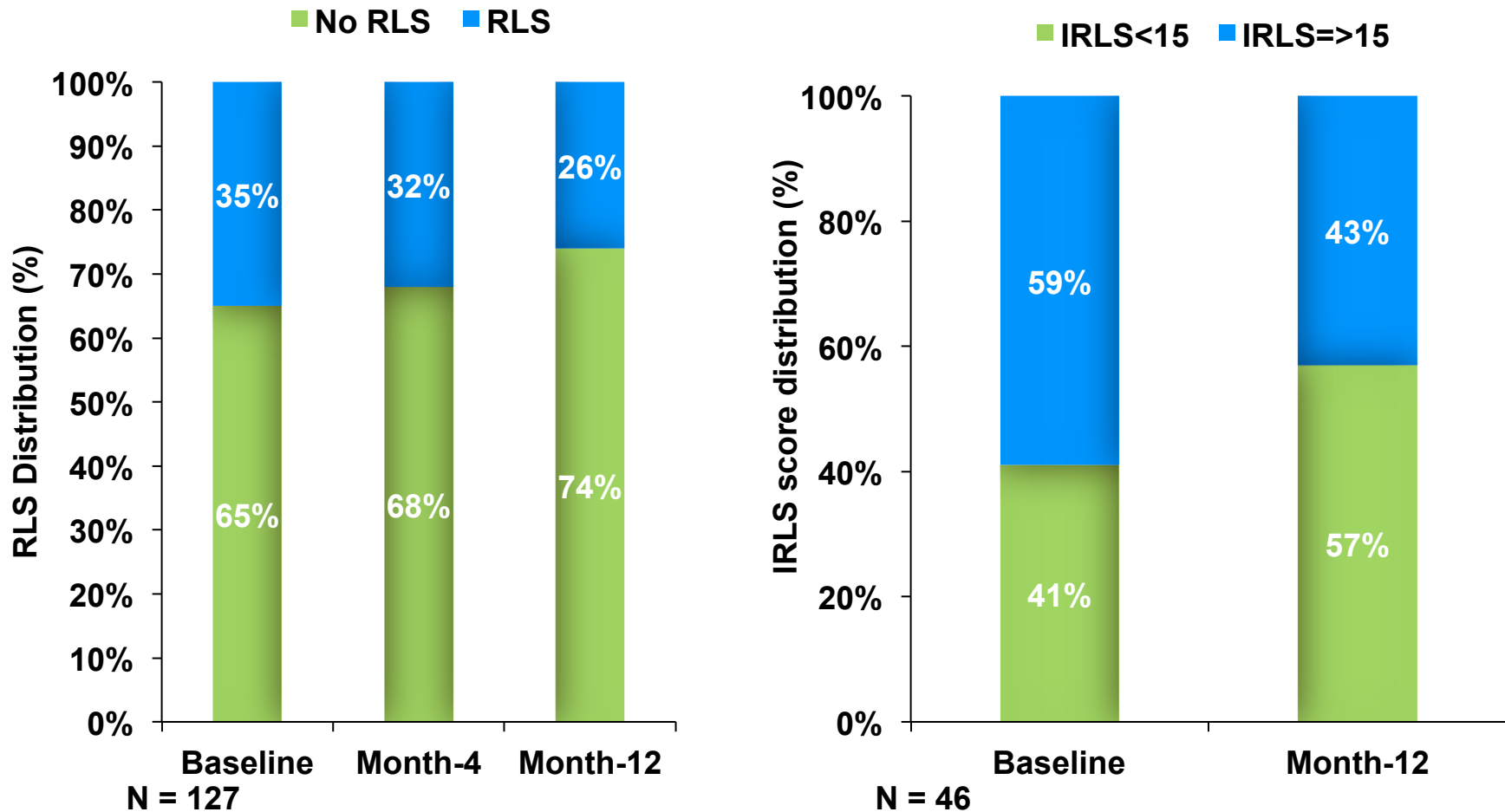
SDHD Reduces Depressive Symptoms (BDI Score)



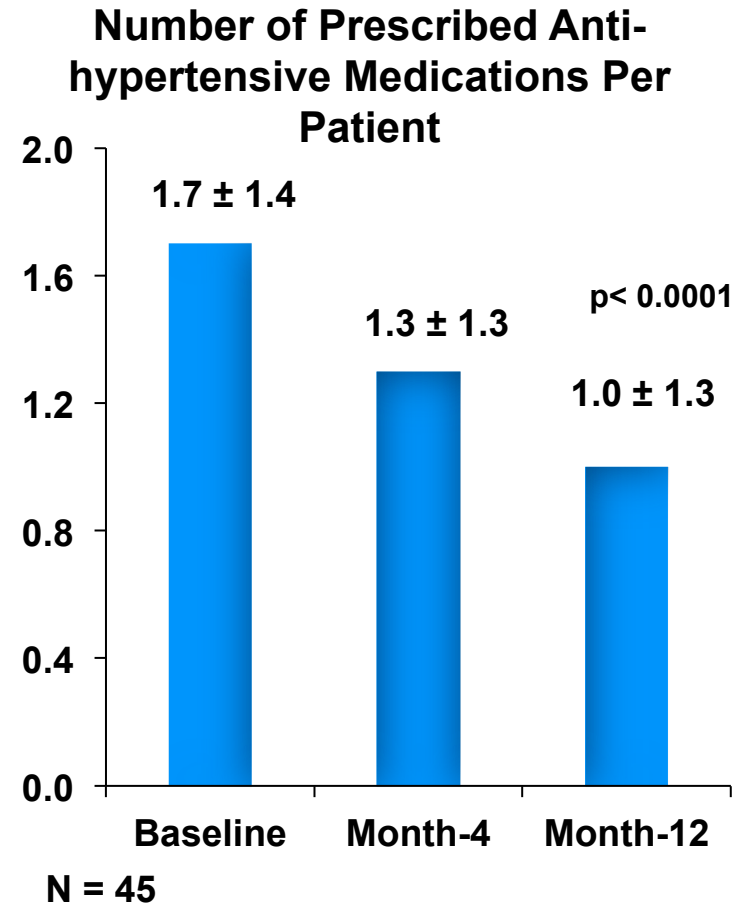
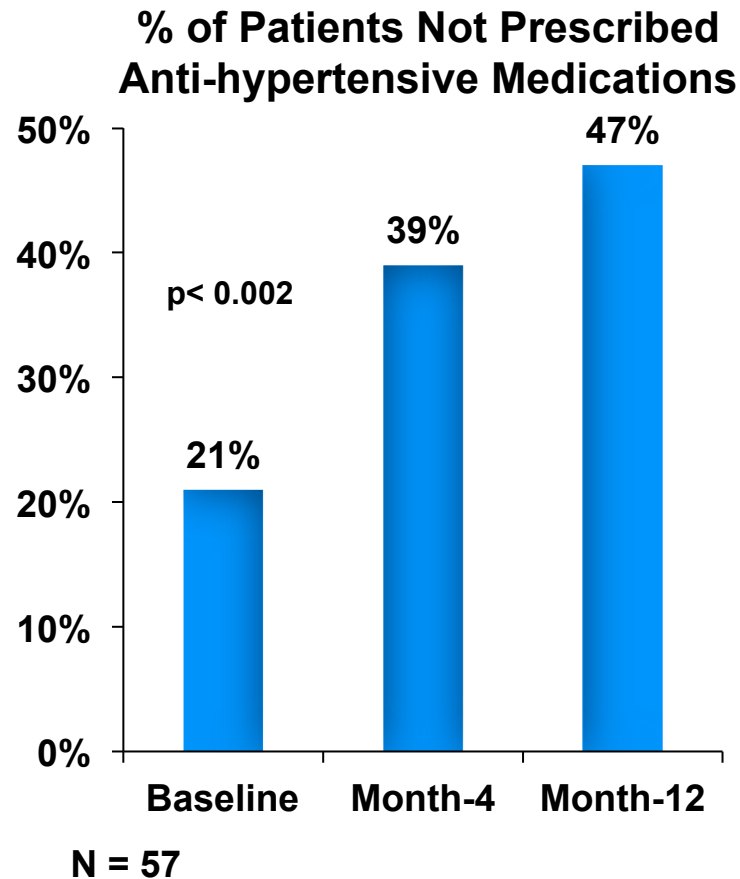
SDHD Reduces “Post-Dialysis Recovery Time”



SDHD Improves Restless Legs Syndrome (IRLSSG scales)



SDHD Reduces the Need for Anti-Hypertensive Medications





Other questions?