

## OBJECTIVES

Chronic dialysis initiation presents many problems: unplanned start, increased peridialytic morbidity and mortality, and reduced modality choice. The Peridialysis study is an ongoing multi-center, international, prospective analysis of clinical and biochemical peridialytic variables in >1000 patients aiming at better understanding of the causes and consequences of unsatisfactory dialysis initiation. One major factor may be physician motivation for dialysis initiation, a subject which has not previously been studied. We asked physicians to justify their actions, and correlated the results to clinical and biochemical variables. Preliminary results are presented.

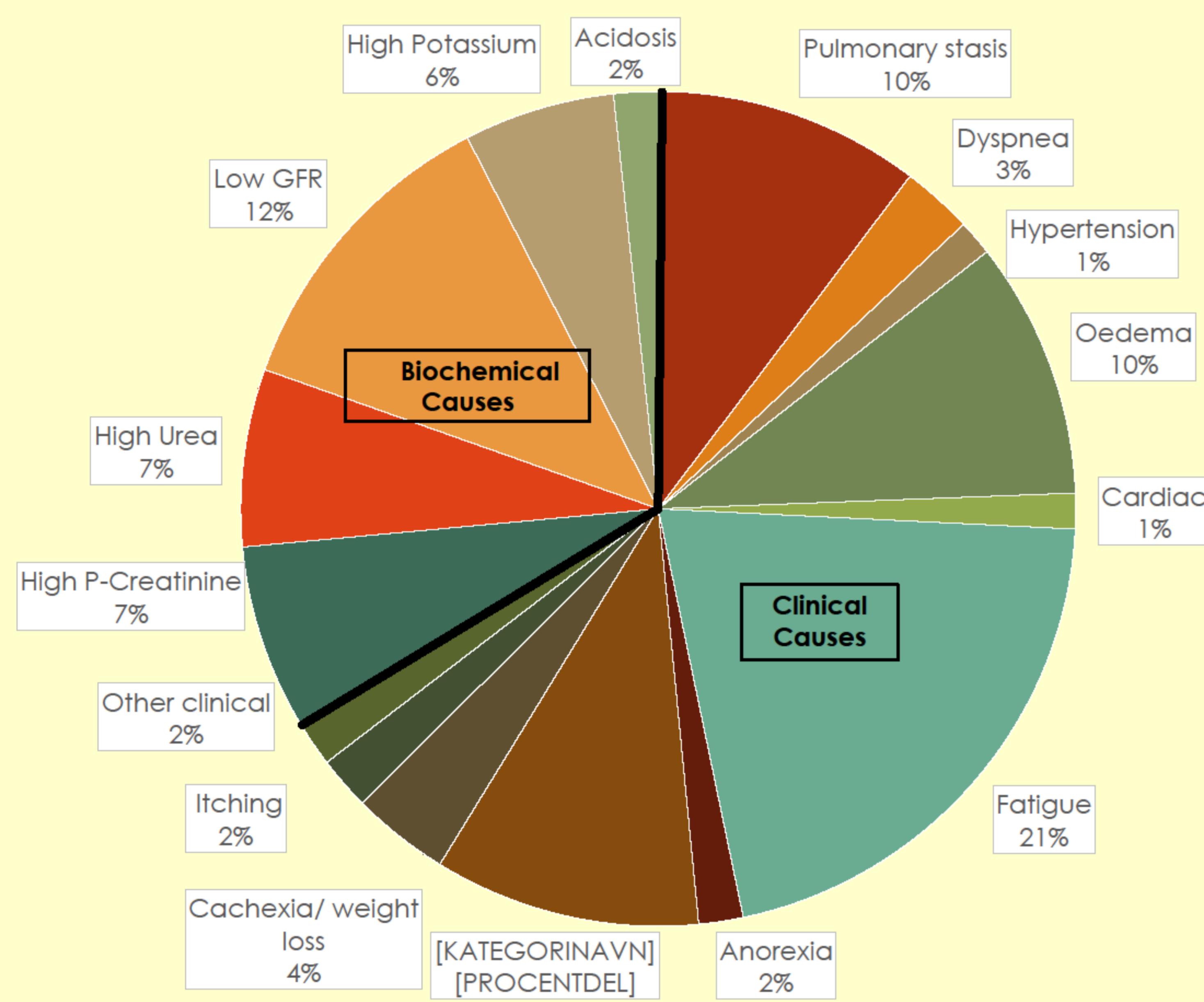
## METHODS

Participating physicians register their primary reason for dialysis initiation, and possible secondary or other reasons. Choices include 17 clinical and 9 biochemical reasons. Registered variables include age, sex, renal diagnosis, 11 comorbid conditions, creatinine and eGFR at 6, 3 and 0 months before dialysis initiation, and terminal values for urea, potassium, bicarbonate, calcium and phosphate. Unplanned start is defined as use of a temporary central venous catheter or PD initiation <6 days after catheter insertion.

## RESULTS

76 doctors prescribed dialysis to 305 new patients in 11 hospitals. 20 different primary reasons were given, 35% biochemical, (primarily low GFR 11%, high urea 7%, high creatinine 7%) and 65% clinical (fatigue 20%, nausea 10%, pulmonary stasis 10%). 22% were life-threatening (pulmonary stasis 10%, hyperkalaemia 6%, dyspnea 3%, acidosis 1.6%, cardiac 1.3%, pericarditis 0.3%). 35% of secondary reasons were clinical. 17% had no clinical reason, and 17% no biochemical. 41% of first dialyses were unplanned, with no difference between biochemical & clinical groups. 62% of life threatening reasons were unplanned. Diabetics had more often primary clinical reasons, 75% vs 60% ( $p < 0.05$ ), and primary clinical generally had more comorbid conditions (1.7 vs. 1.2). Similarly, comorbidity number was positively correlated to terminal eGFR ( $r = 0.19$ ,  $p < 0.01$ ). No effect of patient sex or age was seen. Terminal eGFR was higher for primary clinical than biochemical,  $8.2 \pm 3.8$  vs  $6.7 \pm 3.3$  ml/min ( $p < 0.01$ ). High creatinine was interpreted as  $892 \pm 461$  vs  $636 \pm 244$   $\mu$ M, high urea as  $45 \pm 16$  vs  $32 \pm 12$  mM, low terminal eGFR as  $6.1 \pm 1.9$  vs  $8.3 \pm 4.5$  ml/min, hyperkalaemia as  $5.9 \pm 1.3$  vs  $4.3 \pm 0.7$  mM, acidosis as  $13 \pm 5$  vs  $22 \pm 5$  mM, low calcium ion as  $0.93 \pm 0.16$  vs  $1.14 \pm 0.11$  mM. No clear meaning was attached to the terms high phosphate and falling eGFR.

Primary Reasons for Dialysis Initiation



## CONCLUSIONS

Clinical problems often require dialysis initiation earlier than expected. There is considerable variation in the patients' clinical condition, and in physician motivation and interpretation of biochemical terms. Physician motivation is thus an independent clinical variable. The presence of comorbidity leads to an earlier start of dialysis on clinical grounds. The Peridialysis study is expected to provide valuable information concerning the peridialytic situation, and may lead to a reduction in the incidence of unsatisfactory dialysis initiation.

Do you want to participate? Contact James Heaf [heaf@dadlnet.dk](mailto:heaf@dadlnet.dk) for details

Cause	eGFR (ml/min)	Cause	eGFR (ml/min)
Acidosis	3,5 2,3	High Urea	7,6 3,6
Low eGFR	5,9 1,7	All groups	7,6 3,6
High creatinine	6,6 4,1	High Potassium	7,8 3,6
Oedema	6,7 1,8	Dyspnea	8,2 3,4
Falling eGFR	6,9 3,4	Fatigue	8,2 3,2
Nausea	7,1 2,6	Pruritis	8,6 4,1
Cardiac	7,4 4,7	Practical	8,6 4,1
Anorexia	7,5 1,9	Pulmonary stasis	9,0 5,4
Hypertension	7,5 2,9	Cachexia	10,1 5,4

